



DEPARTMENT OF THE NAVY  
NAVAL HOSPITAL  
2080 CHILD STREET  
JACKSONVILLE, FLORIDA 32214-5000

IN REPLY REFER TO:  
6200.2  
Ser 06IHZZ/ 0794  
JUN 06 2016

From: Commanding Officer, Naval Hospital Jacksonville  
To: Director, Installation and Environmental Division, Albany, GA

Subj: PERIODIC INDUSTRIAL HYGIENE SURVEY OF INSTALLATION AND  
ENVIRONMENTAL DIVISION

Ref: (a) OPNAVINST 5100.23G  
(b) NAVMC DIR 5100.8

Encl: (1) Executive Summary  
(2) Industrial Hygiene Survey Report (AL16010)

1. A periodic Industrial Hygiene Survey of the Installation and Environmental Division was conducted 10-19 May 2016 as required by reference (a). Enclosures (1) and (2) are provided for your information. The assistance of Mr. Dickinson and his staff from the Risk Management Office was greatly appreciated.

2. This survey was conducted 10-19 May 2016 as required by reference (a) and (b). Enclosures (1) and (2) are provided for your information.

3. Point of contact is Ms. Tamara Walker, Industrial Hygiene Department, at 904-546-7114 or tamara.r.walker2.civ@mail.mil.

  
T. R. WALKER  
By direction

Copy to:  
MCLB Risk Management Office, MCLB Albany  
Occupational Health Division, NBHC Albany



## EXECUTIVE SUMMARY

A periodic industrial hygiene survey of the Installation and Environmental Division (I & E) was conducted 9-19 May 2016 by Whitney Bishop, Industrial Hygienist, Naval Hospital, Jacksonville. The purpose of this survey was to identify health hazards present, assess actual health risk, and recommend controls where needed, as well as to assess your Occupational Health program status. No formal response to Industrial Hygiene is needed, although the Safety Manager of Marine Corps Logistics Base (MCLB) Albany may specify recommendations made in this report as items for mandatory corrective action. Following is a summary of major findings and recommendations. Detailed findings, observations and recommendations are provided in enclosure (2) and its associated attachments.

**Item: Hazard Assessments.** Since the previous industrial hygiene (IH) survey in September 2014, the Industrial Hygiene Department has begun to evaluate hazards by operations. This evaluation process has identified several operational changes not previously captured and documented for this division in the Individual Hazard Assessment (Attachment 2). Of special note, several Public Works CRS shop changes were identified. The personnel in the CRS shop no longer clean or change filters in any of the paint or blast booths at the MDMC; these operations have all been contracted out. No one from the CRS shop performs HVAC work; personnel from the PW-FM HVAC/Utilities shop now perform HVAC maintenance. This survey consisted of a walk-through evaluation of the work areas, sampling as required and employee interviews, as appropriate, to assist in the industrial hygiene assessment.

**Recommended Action:** Please review the program summaries in Attachment (1) and the individual work center hazard assessments in Attachment (2) for more details on all identified hazards. If there are any changes in work operation from what is described in this report, or if a focused health hazard evaluation of a specific work operation or new project is needed, please contact Ms. Tamara Walker, Industrial Hygiene Department, at 904-546-7114 or [tamara.r.walker2.civ@mail.mil](mailto:tamara.r.walker2.civ@mail.mil).

**Item: Hazardous Material Management.** At the time of this survey it was noted that all of the I & E Division had Hazardous Material Inventory/Authorized Use Lists (HMI/AUL) that require updating. The AUL list appeared to be outdated with many items listed but no longer used. Only materials currently in use or planned for reoccurring use should be listed on the AUL. Additionally, the attached Material Safety Data Sheets (MSDS) appeared outdated for items routinely used. All MSDSs should be updated to reflect the most current Safety Data Sheet (SDS). (NOTE: Per OSHA, MSDSs must be replaced with current SDSs by June 2016). The shops should continue to participate in the HMC & M Program. This includes continuing to update the HMI/AUL, as needed, and maintaining the current Safety Data Sheets on file and available for hazard communications (HAZCOM) training and compliance. Additionally, some of the AUL Hazardous Material Management System (HMMS) Zones were mislabeled and should be combined based on the shops listed in attachment (2).

**Recommended Action:** The following recommendations are provided:

1. The AUL list should be updated to reflect items routinely used. An accurate list can then be used to provide site specific HAZCOM training which is required for all new

employees, prior to the use of new hazardous material, and annually. Attempting to provide site specific training on an outdated AUL is counterproductive, provides incorrect information, and, often, results in inspection non-compliance.

2. SDS files should be reviewed periodically to ensure the manufacturer's latest revision is available on file. SDS files for all remaining products must be readily available at all times.
3. Recommend that personnel receive training in accordance with the Federal Hazard Communication Standard 29 CFR 1910.1200.
4. Re-evaluate the AUL Zones to match the shops as listed in attachment (2).

**Reference:** OPNAVINST 5100.23G, Chapter 7 and OSHA 1910.1200 Hazard Communication.

**Item:** *Respirator Protection Program (RPP).* A review of the local program found the following items of concern:

1. The standard operating procedure (SOP) (or worksite specific respiratory protection plan) for the use of a respirator for cleaning the 100 meter range bullet trap at the Marine Depot Maintenance Command (MDMC) was outdated.
2. The Environmental Branch's SOP for emergency response was not available.
3. Currently, the Housing Branch has personnel wearing particulate respirators (dust mask) on a voluntary basis that are not NIOSH approved or documented under the base RPP. According to OPNAVINST 5100.23 chapter 15, only NIOSH approved filtering face pieces (dust mask) are allowed to be used for voluntary use. Even though these dust masks are not NIOSH approved, they are considered a respirator according to OSHA's definition that states 'any device that protects an employee from inhaling dangerous substances.' Dust mask are the simplest type of respirator and its use must still be properly documented and personnel trained per OSHA standards.
4. Personnel from CRS want to be added to the Respiratory Protection Program because they clean and perform preventative maintenance on abrasive blast glove boxes at the MDMC.

**Recommended Action:** The following are recommended actions:

1. Update the SOP for cleaning the 100 meter range bullet trap and wearing a full face respirator with a P100 filter.
2. Update or create an SOP for the emergency response personnel using a full face respirator with a P100/OV combo cartridge and/or an SCBA.
3. Purchase NIOSH approved filtering face pieces (dust mask) for the housekeepers and, annually, provide respirator users with the information contained in appendix D of 29 CFR 1910.134, limitations of their use, and document this training. Medical screening and fit testing are not required for voluntary use respirators.
4. Create an SOP for the CRS personnel using a respirator with a P100 filter when cleaning and performing preventative maintenance on abrasive blast glove boxes at the MDMC.

**Reference:** OPNAVINST 5100.23G, Chapter 15, OSHA 29 CFR 1910.134

**Item:** *Welding Operations:* The Public Works CRS shop performs welding operations using thoriated tungsten welding rods. TIG tips (rods) must be kept pointed to maintain a good weld

bead when welding. Currently personnel use shop grinders to grind the ends of the welding rods. Thoriated tungsten emits alpha radiation when ground. Grinding on shop grinders that are not enclosed spread alpha particles around the shop which then become an ingestion hazard and create unnecessarily exposure to alpha particles (radiation). This type of radiation cannot penetrate the skin, however can be dangerous if ingested or inhaled.

**Recommended Action:** It is recommended that the command either purchase an approved grinder that is enclosed (see [www.diamondground.com](http://www.diamondground.com) or [www.techsouthinc.com](http://www.techsouthinc.com)) or investigate switching to another tungsten rod that is not thoriated such as lanthanated rods to prevent exposures to alpha particles. The NAVAIR reference is provided below to highlight the hazards, proper controls, and recommendations to switch out the radiation based rods.

**Reference:** NAVAIR 01-1A-34



**PERIODIC INDUSTRIAL HYGIENE SURVEY  
INSTALLATION AND ENVIRONMENTAL DIVISION  
MARINE CORPS LOGISTICS BASE ALBANY, GEORGIA  
REPORT NUMBER: AL16010**

Ref: (a) OPNAVINST 5100.23G, *Navy Safety and Occupational Health Program Manual*  
(b) Navy and Marine Corps Public Health Center (NMCPHC) Industrial Hygiene Field Operations Manual (IHFOM)

Att: (1) Program Evaluation Summary  
(2) Individual Hazard Assessment  
(3) Medical Surveillance Summary  
(4) Noise Survey and Hearing Protection Requirements and Personal Noise Sampling Results Summary  
(5) Air Sampling Results Summary  
(6) Respiratory Protection Summary  
(7) Exposure Monitoring Plan  
(8) Neutral Posture for Computer Use/Computer Breaks  
(9) Customer Satisfaction Survey

**1. Introduction.** Per reference (a), a periodic industrial hygiene survey of the Installation and Environmental Division (I & E) was conducted 9-19 May by Whitney Bishop, Industrial Hygienist, Naval Hospital, Jacksonville. This survey consisted of a walk-through evaluation of the work areas, a review of the operations and the hazards associated and employee interviews, as appropriate, to assist in the industrial hygiene assessment.

**2. Report Contents.** Reference (a) requires that each Navy workplace, or naval base supported DOD workplace, be thoroughly evaluated in order to accurately identify and quantify all potential health hazards. This report fulfills that requirement. An evaluation summary of Safety and Occupational Health (SOH) programs, control measures, and hazard evaluations is provided in attachment (1). The updated Individual Hazard Assessments for surveyed division(s)/workcenter(s) are provided in attachment (2). Medical surveillance recommendations are provided in attachment (3). A list of the noise hazardous areas and operations and the required level of hearing protection is provided in attachment (4) along with a summary of personal noise sampling results. A summary of air sampling results is provided in attachment (5). The Respiratory Protection Summary, attachment (6), lists the operations requiring respirators and the type of respirators recommended. The Exposure Monitoring Plan, provided in attachment (7), details the operations/processes on which more information is required in the form of periodic sampling. Attachment (8), the Neutral Posture for Computer Use/Computer Breaks, can be used for training personnel in utilizing their computer workstations ergonomically. Attachment (9) is a Customer Satisfaction Survey, so that you may critique the services provided.

**3. Design Reviews.** Per reference (a), industrial hygienists should participate in the review of plans and specifications for local projects, standard operating procedures, purchasing transactions, and contracts which involve, or could create, exposure to potential health hazards,

such as toxic materials, radiation, noise, or other health hazards. Cognizant facilities management and/or occupational health and safety personnel should ensure that the supporting industrial hygienist is made aware of such plans and specifications and that they are made available for his/her review.

**4. Re-evaluation Schedule and Changes in the Workplace.** Please retain this report on file and post a copy in a common work area for personnel to review. IH surveys had historically been accomplished with an established survey frequency based on the nature of operations at the Activity/Command in accordance with reference (a). Survey periodicity is now scheduled at the command or shop level in accordance with reference (b). Ratings and associated survey frequency are now listed on individual work center assessment(s) within this report and reflect as High (annual), Moderate (biennial), or Low (quadrennial) hazard category. Shop periodicity will be continually re-assessed during future IH surveys. The following table provides the shop hazard category and re-evaluation schedule for the division(s)/workcenter(s).

<b>Work Center</b>	<b>Hazard Category<sup>(1)</sup></b>	<b>Next Survey Due (Mon/Yr)</b>
I & E DIV Office of the Director	3 (Low)	May 2020
I & E DIV Environmental Branch	3 (Low)	May 2020
I & E DIV Environmental Branch-Compliance	1 (High)	May 2017
I & E DIV Environmental Branch-Installation Restoration	2 (Moderate)	May 2018
I & E DIV Environmental Branch-Natural Resources	2 (Moderate)	May 2018
I & E DIV Environmental Branch-Pollution Prevention	1 (High)	May 2017
I & E DIV Housing Branch	3 (Low)	May 2020
I & E DIV Housing Branch-Transient Housing	2 (Moderate)	May 2018
I & E DIV Public Works Branch	2 (Moderate)	May 2018
I & E DIV PW-NAVFAC-FEAD	2 (Moderate)	May 2018
I & E DIV PW-FM Boiler	2 (Moderate)	May 2018
I & E DIV PW-FM CRS	1 (High)	May 2017
I & E DIV PW-FM High voltage electricity	2 (Moderate)	May 2018
I & E DIV PW-FM HVAC/Utilities	2 (Moderate)	May 2018
I & E DIV PW-FM IWTP	2 (Moderate)	May 2018
I & E DIV PW-FM Maintenance	2 (Moderate)	May 2018
(1) Hazard categories are based on a consideration of health risk of identified chemical stressors and potential of these stressors to exceed Navy occupational exposure limits, ACGIH Threshold Limit Values, or OSHA substance-specific standards. Hazard category determination protocol is spelled out in reference (b), Chapter 2. Industrial Hygiene has discretion to conduct surveys more often than the minimum frequencies listed above.		

Any significant changes in the type of operations currently performed, current workplace setting, new equipment acquired, or change in the kinds or amounts of chemical used, as identified in the survey, will result in a need for an immediate re-evaluation of the affected area. Industrial Hygiene, Naval Hospital, Jacksonville should be notified in the event of any significant operational changes as described above so that a prompt re-evaluation can be completed.



**PERIODIC INDUSTRIAL HYGIENE SURVEY  
PROGRAM EVALUATION SUMMARY  
INSTALLATION AND ENVIRONMENTAL DIVISION  
MARINE CORPS LOGISTICS BASE ALBANY, GA  
REPORT NUMBER: AL16010  
MAY 2016**

New or Significantly Modified Work Center Operations/Processes?

Comments:

- Since the previous industrial hygiene (IH) survey in September 2014, several Public Works CRS shop changes were identified. The personnel in the CRS shop no longer clean or change filters in any of the paint or blast booths at the MDMC; these operations are contracted out.
- No one from the CRS shop performs HVAC work; personnel from the PW-FM HVAC/Utilities shop now perform HVAC maintenance.
- All operations/process were identified for each of the workcenters and are provided in the Individual Hazard Assessments (attachment (2)).

**Safety and Occupational Health (SOH) Program Findings and Recommendations**

Ref: OPNAVINST 5100.23G

1. Medical Surveillance Program Status.

☐ No Medical Surveillance is Recommended.

☒ Medical Surveillance is Recommended.

Comments:

- The Medical Surveillance Program Summary, attachment (3) summarizes medical surveillance requirements.
- ESAMS data was reviewed on 18 May 2016 to identify compliance for required medical surveillance/certificates.

Work Center	Medical Surveillance/ Certificate	# Personnel in Work Center under Medical Surveillance	# Personnel Current	Readiness Rate (%)
Environmental Branch- Compliance	Forklift operator/material handling equipment (710)	3 (Hazwaste workers)	3	100
Environmental Branch-Natural Resources	Forklift operator/material handling equipment (710)	2	2	100
Environmental Branch- Pollution Prevention	Forklift operator/material handling equipment (710)	3 (Recycling)	3	100
Housing Branch-Transient Housing	Blood and/or body fluid (178)	10 (only 7 are required, 3 as back up)	8 (2 pending June shots)	80
PW-FM CRS	Forklift operator/material handling equipment (710)	11	11	100
PW-FM HVAC/Utilities	Forklift operator/material handling equipment (710)	9	9	100
PW-FM Maintenance	Forklift operator/material handling equipment (710)	1 (Road & grounds tractor operator)	1	100

2. Hazardous Material Control and Management (HMC&M) Program (Chapter 7):

AUL ☒ Y ☐ N ☐ N/A Accurate ☐ Y ☒ N (where spot checked)  
 SDS Files ☒ Y ☐ N ☐ N/A Accurate ☒ Y ☐ N (where spot checked)  
 HAZMAT Training Required? ☒ Y ☐ N  
 Other (lead, asbestos, etc.): ☒ Y ☐ N

Comments:

- Hazardous Material Inventory/Authorized Use Lists (HMI/AUL) required updating. The AUL list appeared to be outdated with many items listed but no longer used. Only materials currently in use or planned for reoccurring use should be listed on the AUL. Albany HAZMAT Cell's Hazardous Material Management System (HMMS) POC, Ms. Tscharna Dameron (229-639-5810), is aware of the outdated SDSs in the HMMS. She can assist these departments in obtaining updated SDSs for the HAZCOM binders.
- All the SDR shops' Hazardous Material Inventory/Authorized Use Lists (HMI/AUL) require updating, especially due to outdated Material Safety Data Sheets (MSDS) for items routinely used. All MSDSs should be updated to reflect the most current Safety Data Sheet (SDS). (NOTE: Per OSHA, MSDSs must be replaced with current SDSs by June 2016). Replace SDSs with the most current SDS, from either the HMMS system or via the manufacturers website
- Ensure HAZCOM training is conducted on an annual basis and as new hazards are introduced for all work centers. Training should include training on specific hazards and OSHA's new Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

3. Respiratory Protection Program (Chapter 15):

Are respirators used to control workplace exposures? ☒ Y ☐ N ☒ Voluntary Use  
 Are they effective? ☒ Y ☐ N ☐ N/A  
 Is the Respiratory Protection Program satisfactory? ☐ Y ☒ N ☐ Marginal ☐ N/A  
 ESAMS agrees with medical surveillance recommendations? ☒ Y ☐ N ☐ N/A

Comments:

- Stacey Williams at MCLB Albany Safety Department is the overall respiratory protection program manager (RPPM).
- Currently the Housing Branch has personnel wearing particulate respirators (dust mask), on a voluntary basis, that are not NIOSH approved or documented under the base RPP. According to OPNAVINST 5100.23 chapter 15, only NIOSH approved filtering face pieces (dust mask) are allowed to be used for voluntary use. It is recommended that the command purchase NIOSH approved filtering face pieces and annually provide respirator users with the information contained in appendix D of 29 CFR 1910.134 and the limitations stated on the respirator approval label. See executive summary for more details.
- Personnel from CRS should be added to the Respiratory Protection Program so they can wear a respirator when cleaning and performing preventative maintenance on the abrasive blast glove boxes.
- For more information see the Respiratory Protection Program Summary, Attachment (7).
- ESAMS data was reviewed on 18 May 2016 to identify compliance for required medical surveillance/certificates.

Work Center	Medical Surveillance/ Certificate	# Personnel in Work Center under Medical Surveillance	# Personnel Current	Readiness Rate (%)
Environmental Branch	Respirator (716)	8	8	100
PW-FM CRS	Respirator (716)	4	0 (New additions)	0

#### 4. Noise and Hearing Conservation Program (HCP) (Chapter 18):

Are personnel recommended for the HCP?

☒ Y ☐ N

Are personnel receiving audiograms?

☒ Y ☐ N ☐ Not All ☐ N/A

Is hearing protection readily available?

☒ Y ☐ N ☐ N/A

Is hearing protection used?

☒ Y ☐ N ☐ N/A ☐ Not observed

Are hearing protection devices adequate?

☒ Y ☐ N ☐ N/A

ESAMS agrees with medical surveillance recommendations?

☒ Y ☐ N ☐ N/A

#### Comments:

- Shop personnel are potentially subject to noise above the DoD criterion for hazardous noise of 85 dBA as an 8-hour Time-Weighted Average (TWA) on a routine basis and should continue participation in the command's Hearing Conservation Program. If any worker enters a noise hazard area or uses noise hazard equipment, they should wear the appropriate hearing protection. Ensure that hearing protection use is strictly enforced throughout the work center.
- Hearing protection devices used are listed in attachment (4) and are capable of attenuating worker noise exposure below the OEL unless otherwise stated. Hearing protection devices with an NRR of 29 or better are needed to reduce noise exposure below the OEL.
- A list of noise hazardous equipment and operations is listed in Attachment (5).
- ESAMS data was reviewed on 18 May 2016 to identify compliance for the Hearing Conservation Program (HCP) audiograms on the shops visited this year:

Work Center	# Personnel in Work Center under Medical Surveillance	# Personnel Current	Readiness Rate (%)
Environmental Branch-Natural Resources	1	1	100
Public Works Branch (Operations)	2	1	50
PW-FM Boiler	5	4 (1 pending a reevaluation)	80
PW-FM CRS	14	12 (2 just added)	86
PW-FM HVAC/Water	8	8	100
PW-FM IWTP	4	4	100
PW-FM Maintenance	4	4	100

- There is one military personnel not in compliance, one pending a reevaluation and 2 newly added personnel that need to receive initial audiograms.
- Currently one person from Public Works Operations FSC and IWTP personnel are enrolled in the program without justification. Safety was investigating at the time of the survey.
- Overall compliance for I & E 90 % with 34 of 38 in compliance.

#### 5. Personal Protective Equipment (PPE) (Chapter 20).

Is PPE required for the job? ☒ Y ☐ N

Is PPE provided? ☒ Y ☐ N ☐ Not All ☐ N/A

#### Comments:

- Personnel are provided personal protective equipment for the various operations performed.

6. Lead Control Program (Chapter 21).

Is lead used in the workplace?

☒ Y ☐ N

Is exposure to lead in excess of the action level (AL)?

☐ Y ☒ N ☐ N/A

Comments:

- Personnel from the Environmental Branch clean the 100 meter range bullet trap inside the Maintenance Center Albany area at building 2227, known for lead contamination. Wet method is utilized to reduce dust resuspension along with inhalation protection via a respirator. It is recommended that the command look into moving or installing a water facet on the outside of the building so that personnel do not have to expose themselves to lead dust.

7. Ergonomics (Chapter 23):

Ergonomic risk factors were identified pertaining to:

☒ Shop work

☒ Office/Computer work

Available equipment/furniture incorporates good ergonomic design? ☐ Y ☒ N ☐ N/A

Ergonomic training recommended?

☒ Y ☐ N

Comments:

- Main offices are typically equipped with cubicle or executive styled desks, most without keyboard trays. In general, the desks had hard edges and keyboards and mice were placed on the desktop. Personnel had no complaints about the office areas and office space set ups.
- Personnel from various shops have various ergonomic hazards associated with shop work to include heavy lifting and static postures. No injuries were reported. However, it is recommended that refresher training be provided on how to perform these activities with minimal stress to the body.
- Refresher training for ergonomics is specified as "at command discretion" by OPNAVINST 5100.23G, Chapter 23 article 2308a.
- Attachment (6) illustrates the optimum computer station setup and placement of the screen, hands, wrists, etc.

8. Management of Reproductive hazards (Chapter 29):

Reproductive Hazards Present? ☒ Y ☐ N

Comments: Reproductive hazards listed in OPNAVINST 6000.1C or NMCPHC-TM-OEM 6260.01C have been identified in this workcenter. It is recommended that, wherever possible, the workcenter reduce, minimize, and/or eliminate the reproductive hazards and personnel exposure.

- Reproductive hazards are specifically identified for all operations addressed in attachment (2). They include noise, lead, carbon monoxide, gasoline, toluene, xylene, ethanol, potassium iodide, heavy lifting, and heat stress.

9. Management of Carcinogenic hazards:

Cancer Causing Hazards Present? ☒ Y ☐ N

Comments: Carcinogens have been identified in this workcenter. It is recommended that, wherever possible, the workcenter reduce, minimize, and/or eliminate carcinogens and personnel exposure.

- Cancer causing hazards are specifically identified for all operations addressed in attachment (2). They include asbestos, petroleum distillates, methylene chloride, crystalline silica, cadmium, hexavalent chromium, carbon black, alpha radiation, and UV radiation.

10. Other Applicable Programs:

☒ Asbestos Control (Chapter 17)

☐ Non-ionizing radiation (Chapter 22)

☐ Ventilation

☐ PCBs (Chapter 25)

☒ Bloodborne Pathogens (Chapter 28)

☐ Other

Comments:

- Personnel from the Environmental Branch are qualified to pull asbestos samples. This is very minimal.
- Personnel from the Housing Branch can be exposed to bloodborne pathogens (body fluids) when performing housekeeping and laundry operations.

11. Exposure Monitoring Plan (EMP):

- ☒ Exposure Monitoring needs were identified.  
☐ No Exposure Monitoring needs were identified.

Comments:

- Attachment (8) provides the current Exposure Monitoring Plan.

Additional Comments: None.



**FTABLE OF CONTENTS**  
**INDUSTRIAL HYGIENE SURVEY**  
**WORKCENTER SPECIFIC EVALUATIONS FOR**  
**INSTALLATION AND ENVIRONMENTAL DIVISION**  
**MARINE CORPS LOGISTICS BASE ALBANY GA**

<b>DEPARTMENTS/WORKCENTERS</b>	<b>Page</b>
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I & E DIV PW-FM High voltage electricity	45
I & E DIV PW-FM HVAC/Utilities	47
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I & E DIV PW-FM Maintenance	58

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 13 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E Division Office of the Director <b>SHOP HAZARD PRIORITY RATING:</b> 3			<b>POC:</b> Thomas Mullen (Safety rep) <b>PHONE:</b> 639-8411 <b>TOTAL PERSONNEL:</b> 8 (Civ: 8) <b>MALE:</b> 5 <b>FEMALE:</b> 3	
<b>SHOP OPERATIONS:</b> The Installations and Environmental Division (I & E Division) provides quality facilities and a full range of timely support and services to support the mission of MCLB Albany, tenant activities and other customers. This shop includes the Director, Deputy Director and assistant, Energy Manager, Program analyst, Financial analyst, Financial tech and the Safety and Occupational Health Specialist. Duties are primarily administrative in nature.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/ DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Site/Safety visits: Noise*  The safety and occupational health specialist will go out and check on personnel. This can include going into areas with hazardous noise.	1	1-2x/week 1 hour	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96 dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  Personnel should wear the required PPE in the areas visiting. Be cautious of the noise levels. If you have to raise your voice, it is a good indication hearing protection is required.  <i>*Noise is a recognized developmental reproductive hazard.</i>
Site/Safety visits: Eye hazards and foot hazards  The safety and occupational health specialist will go out and check on personnel and may experience some exposure to various industrial hazards.	1	1-2x/week 1 hour	PPE: Hard hat, safety glasses and steel-toed shoes (when required).	<b>ACCEPTABLE:</b> No significant exposures expected.
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	All	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.



<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 13 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E Division Office of the Director <b>SHOP HAZARD PRIORITY RATING:</b> 3			<b>POC:</b> Thomas Mullen (Safety rep) <b>PHONE:</b> 639-8411 <b>TOTAL PERSONNEL:</b> 8 (Civ: 8) <b>MALE:</b> 5 <b>FEMALE:</b> 3	
<b>SHOP OPERATIONS:</b> The Installations and Environmental Division (I & E Division) provides quality facilities and a full range of timely support and services to support the mission of MCLB Albany, tenant activities and other customers. This shop includes the Director, Deputy Director and assistant, Energy Manager, Program analyst, Financial analyst, Financial tech and the Safety and Occupational Health Specialist. Duties are primarily administrative in nature.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/ DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				
<b>2. EXPOSURE ASSESSMENT</b> refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: <b>ACCEPTABLE</b> – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). <b>UNCERTAIN</b> – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. <b>UNACCEPTABLE</b> – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. <b>WMSD RISK FACTORS</b> – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. <b>SKIN</b> – The material poses a skin absorption hazard. <b>REPRO HAZARD</b> – The material is a Navy-recognized reproductive hazard. <b>CARCINOGEN</b> – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 10 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Environmental Branch <b>SHOP HAZARD PRIORITY RATING:</b> 3			<b>POC:</b> Branch Head Mr. Wallace <b>PHONE:</b> 639-8616 <b>TOTAL PERSONNEL:</b> 1 (Civ: 1) <b>MALE:</b> 1 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> The environmental branch provides oversight and coordination of environmental compliance to ensure compliance with applicable pollution control and environmental laws, federal regulations, DoD and State and local government directives and laws. This branch consists of four sections: Compliance, Installation Restoration, Natural Resources and Pollution Prevention. Each Environmental Branch section has its own Individual Hazard Assessment (IHA) that captures that sections unique operations and exposure assessments.)				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	1	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				
<b>2. EXPOSURE ASSESSMENT</b> refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: <b>ACCEPTABLE</b> – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). <b>UNCERTAIN</b> – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. <b>UNACCEPTABLE</b> – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. <b>WMSD RISK FACTORS</b> – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. <b>SKIN</b> – The material poses a skin absorption hazard. <b>REPRO HAZARD</b> – The material is a Navy-recognized reproductive hazard. <b>CARCINOGEN</b> – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			DATE: 10 & 12 May 2016	
RECORDED BY: Whitney Bishop COMMAND: Marine Corps Logistics Base Installation and Environment Division BLDG: 5501 SHOP: I & E DIV Environmental Branch-Compliance SHOP HAZARD PRIORITY RATING: 1			POC: Mr. Reimer PHONE: 639-8199 TOTAL PERSONNEL: 5 (Civ: 5) MALE: 4 FEMALE: 1	
SHOP OPERATIONS: This shop is part of the Environmental Branch. The Compliance section is responsible for oversight of the bases environmental compliance programs. Main responsibilities include HAZWASTE disposal, title 5 permits and training. Personnel also make up the emergency response team and the section head cleans the small arms shooting range and conducts asbestos sampling.				
OPERATIONS AND POTENTIAL HEALTH HAZARDS	NUMBER OF WKRS	FREQUENCY/DURATION OF EXPOSURE	CONTROLS (1)	EXPOSURE ASSESSMENT (2)
Various shop operations: Noise*  1. Hazardous waste disposal: Personnel in the compliance section use the oil filter crusher and aerosol paint can crusher in the recycling center.  2. Site visits: The hazardous waste manager performs monthly inspections of all waste collection sites. This can include going into industrial areas.  3. Cleaning small arms shooting range: Personnel clean the 100 meter range bullet trap inside the Maintenance Center Albany area at building 2227.  4. Emergency Response: When personnel respond to environmental spill/disasters there may be a potential to have exposure to hazardous noise.  See attachment (4) for sound level measurement results.	1. 3  2. 1  3. 1  4. 4	1. Oil filter crusher: 1x/quarter 1 hour Paint can crusher: 1x/week 10 minutes  2. 2-3 days/month 1-2 hours Total 24 hours/month  3. At a minimum after each rain 3-4 hours  4. As needed 30 minutes-several hours	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96 dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  Personnel should wear the required PPE in the areas visiting. Be cautious of the noise levels. If you have to raise your voice, it is a good indication hearing protection is required.  <i>*Noise is a recognized developmental reproductive hazard.</i>
Asbestos work: Asbestos*  Personnel are qualified to perform various aspects of asbestos work to include pulling bulk samples and acting as Asbestos Project Supervisor.  Asbestos removal is now all contracted out.	1 Project Supervisor	As needed	PPE: Disposable nitrile gloves and safety glasses as needed.  ADM: Wet method as needed.	<b>ACCEPTABLE:</b> No significant exposure expected based on the nature of exposure as described.  <b>Note:</b> Past asbestos team members (including the one mentioned here) continue to receive Asbestos Past Worker (115/116) medical surveillance.  <i>*Asbestos is a recognized carcinogen.</i>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>		<b>DATE:</b> 10 & 12 May 2016		
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Environmental Branch-Compliance <b>SHOP HAZARD PRIORITY RATING:</b> 1		<b>POC:</b> Mr. Reimer <b>PHONE:</b> 639-8199 <b>TOTAL PERSONNEL:</b> 5 (Civ: 5) <b>MALE:</b> 4 <b>FEMALE:</b> 1		
<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Compliance section is responsible for oversight of the bases environmental compliance programs. Main responsibilities include HAZWASTE disposal, title 5 permits and training. Personnel also make up the emergency response team and the section head cleans the small arms shooting range and conducts asbestos sampling.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<p>Hazardous waste disposal: Various chemicals (i.e. petroleum distillates*), heavy lifting* and carbon monoxide*</p> <p>Personnel are responsible for processing all hazardous waste from the base to include the maintenance depot area. This will include performing spot checks of the drums (various chemicals to include petroleum distillates*) and moving drums with a forklift (carbon monoxide*).</p> <p>Personnel may also use Ecosure aerosol spray paint to mark containers (37038 flat black- acetone and butyl acetate, 11136 gloss red- butyl acetate). This operation performed in short duration.</p>	3	<p>Daily</p> <p>Up to 4 hours</p>	<p>PPE: Disposable nitrile gloves and safety glasses.</p> <p>ENG: Use of forklifts.</p> <p>ADM: Proper lifting procedures and forklift operated in an open area.</p>	<p><b>ACCEPTABLE of various chemicals and carbon monoxide:</b> No significant exposures to petroleum distillates or carbon monoxide expected based on the nature of exposure as described as well as small duration and amounts exposed to.</p> <p><b>WMSD RISK FACTORS:</b> No problems reported. There is the potential for ergonomic injuries to occur; training is recommended. Continue to provide regular awareness training on the proper movement and placement of heavy components and parts.</p> <p>Any ergonomic-related injury should be reported to the command safety officer.</p> <p><b>Medical surveillance for Forklift Operator/Material Handling Equipment (710) is required.</b></p> <p><i>*Heavy lifting and carbon monoxide are developmental reproductive hazards.</i>  <i>* Petroleum distillates are known carcinogens.</i></p>
<p>Site visits: Eye hazards and foot hazards</p> <p>The hazardous waste manager performs monthly inspections of all waste collection sites. This can include going into industrial areas.</p>	1	<p>2-3 days/month</p> <p>1-2 hours</p> <p>Total 24 hours/month</p>	<p>PPE: Hard hat, safety glasses and steel-toed shoes (when required).</p>	<p><b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.</p>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>		<b>DATE:</b> 10 & 12 May 2016		
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Environmental Branch-Compliance <b>SHOP HAZARD PRIORITY RATING:</b> 1		<b>POC:</b> Mr. Reimer <b>PHONE:</b> 639-8199 <b>TOTAL PERSONNEL:</b> 5 (Civ: 5) <b>MALE:</b> 4 <b>FEMALE:</b> 1		
<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Compliance section is responsible for oversight of the bases' environmental compliance programs. Main responsibilities include HAZWASTE disposal, title 5 permits and training. Personnel also make up the emergency response team and the section head cleans the small arms shooting range and conducts asbestos sampling.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<p>Cleaning small arms shooting range: Lead dust* and heat stress*</p> <p>1. Personnel clean the 100 meter range bullet trap inside the Maintenance Center Albany area in building 2227. This is conducted, at a minimum, every time it rains because existing leaks make the filters wet and unable to properly work. Personnel hose down the room allowing water and lead dust wash down the industrial drain for treatment at the water treatment plant. Personnel then clean out the trough placing the remaining hazardous waste into a 55-gallon drum using a vacuum system for disposal. Personnel also change out three filters.</p> <p>2. Personnel are required to clean the area before CRS personnel can enter the area to perform maintenance. This includes entering the bullet trap building and hosing down the area to minimize the lead dust.</p>	1	<p>1. At a minimum after each rain 3-4 hours</p> <p>2. As needed for CRS</p>	<p>PPE: Tyvek body suite, disposable nitrile gloves and a full face respirator with a P100 filter.</p> <p>ADM: Wet method and hand washing.</p> <p>ADM: Work/rest cycles based on the flag condition.</p>	<p><b>UNCERTAIN for lead:</b> Personnel must enter the room to get to the hose in order to wet the area down. Therefore they are unnecessarily exposing themselves to lead dust. It is recommended that the command look into moving or installing a water facet on the outside of the room so that personnel do not have to expose themselves to lead dust. Personnel should also be cognizant to properly remove PPE and wash hands after working in the area to reduce any spread of lead dust and the potential for ingestion.</p> <p><b>ACCEPTABLE for heat:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition.</p> <p>Currently, personnel are wearing a full face respirator with a P100/OV combo cartridge that should be discarded after each use.</p> <p>Personnel should be placed in a medical surveillance program for respirator use (716). The proper placement of the hose to allow an immediate wetting action, followed by confirmation sampling may allow personnel to be removed from the mandatory use of respirators.</p> <p><i>*Lead and high heat are reproductive hazards.</i></p>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 10 & 12 May 2016	
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<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Compliance section is responsible for oversight of the bases environmental compliance programs. Main responsibilities include HAZWASTE disposal, title 5 permits and training. Personnel also make up the emergency response team and the section head cleans the small arms shooting range and conducts asbestos sampling.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<p>Emergency Response: Various chemicals (i.e. petroleum distillates*) and heat stress*</p> <p>Personnel from each section form an emergency response team in the event of environmental spills/disasters. This can include anything from storage tank spills to a vehicle leaking fuel.</p>	4	As needed 30 minutes-several hours	<p>PPE: Level A/B/C's (Can include the use of a full face respirator).</p> <p>ADM: Work/rest cycles based on the flag condition.</p>	<p><b>UNCERTAIN for various chemicals:</b> Specific exposure assessments for emergency response can only be completed on a case-by-case basis. However, generally anticipate low toxicity &amp; limited frequency/duration of exposure.</p> <p><b>ACCEPTABLE for heat:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition.</p> <p><b>Personnel should be placed in a medical surveillance program for respirator use (716).</b></p> <p>Personnel are issued a Scott full face respirator mask only. These are compatible with the SCBA equipment maintained by the fire department. For situations when the mask is used with the P100/OV combo cartridge, the combo cartridge should be discarded after each use.</p> <p><i>* Petroleum distillates are known carcinogens.</i>  <i>* High heat is a reproductive hazard.</i></p>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>		<b>DATE:</b> 10 & 12 May 2016		
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Environmental Branch-Compliance <b>SHOP HAZARD PRIORITY RATING:</b> 1		<b>POC:</b> Mr. Reimer <b>PHONE:</b> 639-8199 <b>TOTAL PERSONNEL:</b> 5 (Civ: 5) <b>MALE:</b> 4 <b>FEMALE:</b> 1		
<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Compliance section is responsible for oversight of the bases environmental compliance programs. Main responsibilities include HAZWASTE disposal, title 5 permits and training. Personnel also make up the emergency response team and the section head cleans the small arms shooting range and conducts asbestos sampling.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	Any	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				
<b>2. EXPOSURE ASSESSMENT</b> refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: <b>ACCEPTABLE</b> – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). <b>UNCERTAIN</b> – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. <b>UNACCEPTABLE</b> – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. <b>WMSD RISK FACTORS</b> – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. <b>SKIN</b> – The material poses a skin absorption hazard. <b>REPRO HAZARD</b> – The material is a Navy-recognized reproductive hazard. <b>CARCINOGEN</b> – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 10 & 12 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Environmental Branch-Installation Restoration <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Mr. Elam <b>PHONE:</b> 639-7868 <b>TOTAL PERSONNEL:</b> 1 (Civ: 1) <b>MALE:</b> 1 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Installation Restoration Section is responsible for oversight of the bases closed landfills, burial sites, groundwater contamination sites and the superfund site. This can include site inspections.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<b>Site visits: Noise*</b>  Personnel perform various site visits to perform a visual inspection following a prescribed checklist. This can include going into industrial areas where hazardous noise is a concern.	1	1x/week 1 hour	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96 dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  Personnel should wear the required PPE in the areas visiting. Be cautious of the noise levels. If you have to raise your voice, it is a good indication hearing protection is required.  <i>*Noise is a recognized developmental reproductive hazard.</i>
<b>Site visits: Eye hazards and foot hazards</b>  Personnel perform various site visits to perform a visual inspection following a prescribed checklist.	1	2-3x/month Less than 1 hour	PPE: Hard hat, safety glasses and steel-toed shoes (when required).	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.
<b>Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures</b>  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	1	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				



<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 10 & 12 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Environmental Branch-Installation Restoration <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Mr. Elam <b>PHONE:</b> 639-7868 <b>TOTAL PERSONNEL:</b> 1 (Civ: 1) <b>MALE:</b> 1 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Installation Restoration Section is responsible for oversight of the bases closed landfills, burial sites, groundwater contamination sites and the superfund site. This can include site inspections.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<p>2. EXPOSURE ASSESSMENT refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes:</p> <p>ACCEPTABLE -- One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL).</p> <p>UNCERTAIN -- Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment.</p> <p>UNACCEPTABLE -- One where the IH will expect the SEG, on average, to be exposed above the selected OEL.</p> <p>WMSD RISK FACTORS -- Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress.</p> <p>SKIN -- The material poses a skin absorption hazard.</p> <p>REPRO HAZARD -- The material is a Navy-recognized reproductive hazard.</p> <p>CARCINOGEN -- The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.</p>				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 10 & 12 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Environmental Branch-Natural Resources <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Ms. Robbins <b>PHONE:</b> 639-9946 <b>TOTAL PERSONNEL:</b> 2 (Civ: 2) <b>MALE:</b> 1 <b>FEMALE:</b> 1	
<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Natural Resources section is responsible for oversight of the bases natural resources including law enforcement, animal control, maintaining a nature center and conducting controlled burns on site.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Various shop operations: Noise*  1. Personnel use various tools to include chain saws, power tools, tractors and ATVs.  2. Weapons Qualifications: The game warden carries a weapon and qualifies annually.	1. 2  2. 1	1. Varies-Job dependent could be up to 4 hours  2. 2x/year 1-2 hours	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96 dBA. Double hearing protection requires the use of earplugs AND muffs.	1. <b>ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  2. <b>UNACCEPTABLE for weapons qualifications:</b> All personnel who fire weapons, even for just qualification, are recommended for inclusion in the Hearing Conservation Program and its associated medical surveillance.  <b>Medical surveillance for Noise (503) is required. (Game Warden only due to weapons qualification.)</b>  <i>*Noise is a recognized developmental reproductive hazard.</i>
Controlled burns: Carbon monoxide*, heat stress*, burns and gasoline*  Personnel conduct controlled burns on base. This usually occurs January-June. Personnel work outdoors a majority of the day. Personnel use a combination of four gallons diesel and one gallon mogas. This is obtained at the gas station and filled into containers.	2	As permitted by weather 4-5 hours at a time	PPE: Fire suits (Pants, shirts and boots).  ADM: Direction of wind.  ADM: Work/rest cycles and hydration.  ADM: Performed outdoors (natural ventilation).	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.  <i>*Carbon monoxide, high heat and gasoline are reproductive hazards.</i>
Tree marking: Methanol  Personnel use Nelson Paint tree marking paint 3242 Blue and 3143 LF orange (methanol) to mark trees.	2	3x/year 3 days 3 hours	PPE: Disposable nitrile gloves as needed.  ADM: Performed outdoors (natural ventilation).	<b>ACCEPTABLE:</b> Based on handling procedures and limited duration of exposure.

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 10 & 12 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Environmental Branch-Natural Resources <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Ms. Robbins <b>PHONE:</b> 639-9946 <b>TOTAL PERSONNEL:</b> 2 (Civ: 2) <b>MALE:</b> 1 <b>FEMALE:</b> 1	
<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Natural Resources section is responsible for oversight of the bases natural resources including law enforcement, animal control, maintaining a nature center and conducting controlled burns on site.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<p>Working with animals: Various animal hazards to include diseases (Lyme disease, rabies, etc.) insect bites and animal bites</p> <p>Personnel are trained to catch and remove animals on base, take blood samples from animals and performing any other duties dealing with live/dead animals. Usually does not include exposure to any feces; however, appropriate PPE must be obtained if needed.</p>	2	As needed Less than 1 hour at a time	PPE: Disposable gloves or leather gloves as needed.	<p><b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.</p> <p>Personnel should be placed in medical surveillance for Animal Associated Disease (207).</p>
<p>Herbicide application: Potassium salt of glyphosate</p> <p>Personnel are qualified to use Roundup herbicide at the Nature Center. Personnel will dilute the herbicide in either a backpack sprayer or a pump sprayer behind an ATV.</p>	1	Weekly 30 minutes	<p>PPE: Elbow length butyl rubber gloves, goggles and apron.</p> <p>ADM: Performed outdoors in open air.</p>	<p><b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.</p> <p>Operations are intended to be expanded. Therefore, additional evaluation may be warranted. Contact the Industrial Hygiene Department if frequency of operations changes.</p>
<p>Equipment maintenance: Petroleum distillates*</p> <p>Personnel maintain chain saws which includes the use of Spectrum Lubricant 30wt red bar and chain oil (petroleum distillates*), Poulan weed eater synthetic 2-cycle engine oil (petroleum distillates) and PB blaster (petroleum distillates* 64742-65-0).</p> <p>Personnel also use bleach mixed with water to clean traps, cooler and when processing samples.</p>	2	Weekly 3 hours	PPE: Disposable nitrile gloves and safety glasses.	<p><b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.</p> <p><i>* Petroleum distillates are known carcinogens.</i></p>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 10 & 12 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Environmental Branch-Natural Resources <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Ms. Robbins <b>PHONE:</b> 639-9946 <b>TOTAL PERSONNEL:</b> 2 (Civ: 2) <b>MALE:</b> 1 <b>FEMALE:</b> 1	
<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Natural Resources section is responsible for oversight of the bases natural resources including law enforcement, animal control, maintaining a nature center and conducting controlled burns on site.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Various shop operations: Carbon monoxide*  Controlled burns, tree marking and herbicide application: Personnel use various types of material handling equipment that include tractors, hoes, ATVs and forklifts.	2	2-3x/week 2 hours	ADM: Performed outdoors in open air.  ENG: Enclosed cabs.	<b>ACCEPTABLE:</b> No significant exposure expected based on the nature of exposure as described.  <b>Medical surveillance for Forklift Operator/Material Handling Equipment (710) is required.</b>  <i>*Carbon monoxide is a developmental reproductive hazard.</i>
All shop operations: Heat stress* and UV radiation*  Personnel spend 50-80% of the time outside or in spaces without air condition.	All	Daily Up to 8 hours	PPE: Sunscreen (>30 SPF), UV protective sunglasses.  ADM: Work/rest cycles based on the flag condition.	<b>ACCEPTABLE:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition.  Personnel should be provided PPE to protect against UV radiation including sunglasses. Personnel exposed to UV radiation may develop pinguecula or pterygium (growths on the eye's cornea). Personnel exposed to UV radiation are more likely to develop skin cancer. Personnel should be encouraged to hydrate while working outside. Personnel are encouraged to seek shelter in the air conditioned areas routinely throughout the day especially during the high heat season.  <i>*High heat is considered a reproductive hazard.</i> <i>*UV radiation is a recognized carcinogen.</i>

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<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Environmental Branch-Natural Resources <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Ms. Robbins <b>PHONE:</b> 639-9946 <b>TOTAL PERSONNEL:</b> 2 (Civ: 2) <b>MALE:</b> 1 <b>FEMALE:</b> 1	
<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Natural Resources section is responsible for oversight of the bases natural resources including law enforcement, animal control, maintaining a nature center and conducting controlled burns on site.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	2	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				
<b>2. EXPOSURE ASSESSMENT</b> refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: <b>ACCEPTABLE</b> – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). <b>UNCERTAIN</b> – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. <b>UNACCEPTABLE</b> – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. <b>WMSD RISK FACTORS</b> – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. <b>SKIN</b> – The material poses a skin absorption hazard. <b>REPRO HAZARD</b> – The material is a Navy-recognized reproductive hazard. <b>CARCINOGEN</b> – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 10 & 12 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Environmental Branch-Pollution Prevention <b>SHOP HAZARD PRIORITY RATING:</b> 1			<b>POC:</b> Mr. Metts <b>PHONE:</b> 639-8934 <b>TOTAL PERSONNEL:</b> 5 (Civ: 5) <b>MALE:</b> 5 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Pollution Prevention section is responsible for tracking all HAZMAT on base, the drinking water program, storage tanks, asbestos program and runs the base recycling program. Personnel also make up the emergency response team and the section head cleans the small arms shooting range and conducts asbestos sampling.				
OPERATIONS AND POTENTIAL HEALTH HAZARDS	NUMBER OF WKRS	FREQUENCY/DURATION OF EXPOSURE	CONTROLS (1)	EXPOSURE ASSESSMENT (2)
Various shop operations: Noise*  1. Drinking water samples: Personnel may have to go into well houses where there is noise.  2. Recycling: Personnel use various machines to include cardboard baler and aluminum can crusher.  3. Cleaning small arms shooting range: Personnel clean the 100 meter range bullet trap inside the Maintenance Center Albany area at building 2227.  4. Emergency Response: When personnel respond to environmental spill/disasters there may be a potential to have exposure to hazardous noise.  See attachment (4) for sound level measurement and noise dosimetry results.	1. 2  2. 3  3. 1  4. 2	1. Quarterly 3 wells 30-45 minutes each  2. Daily Up to 2 hours  3. At a minimum after each rain 3-4 hours	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96 dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  Personnel should wear the required PPE in the areas visiting. Be cautious of the noise levels. If you have to raise your voice, it is a good indication hearing protection is required.  <i>*Noise is a recognized developmental reproductive hazard.</i>
<b>HAZMAT management:</b> Petroleum distillates*, toluene*, xylene*, propane, butane, methyl propane, ethanol*, methanol and ethyl benzene  Personnel are responsible for tracking all HAZMAT on base from cradle to grave. This primarily includes administrative work but also includes inspections of HAZMAT lockers.	1	Over 90 zones About 40 hours a month	PPE: Safety glasses and disposable nitrile gloves as needed.	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.  <i>* Petroleum distillates are known carcinogens.          *Toluene, xylene and ethanol are reproductive health hazards.</i>
<b>Drinking water samples:</b> Eye and foot hazards  Personnel are responsible for the drinking water program on base. This is primarily administrative work; however they also pull quarterly samples for analysis (shipped out to a lab).	2	Quarterly 3 wells 30-45 minutes each	PPE: Safety glasses and Steel toed boots. Disposable nitrile gloves as needed.	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.

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<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Pollution Prevention section is responsible for tracking all HAZMAT on base, the drinking water program, storage tanks, asbestos program and runs the base recycling program. Personnel also make up the emergency response team and the section head cleans the small arms shooting range and conducts asbestos sampling.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/ DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Storm water samples: Eye and foot hazards  Personnel are responsible for pulling samples from storm water point sources after about a half inch of rain fall to perform a visibility and odor test. There are 24 locations on base.	2	As needed after rainfall	PPE: Safety glasses and steel toed boots. Disposable nitrile gloves as needed.	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.
Recycling: Sharp objects (cuts), eye hazards, carbon monoxide*, heat stress* and heavy lifting*  Personnel go out to collect recycling from various pick up sites on base and bring it back to the collection point. Personnel then sort and condense as needed.  Personnel also use 404 big red alkaline w/b cleaner (glycol ethers) to clean the floors.	3	Daily Up to 8 hours	PPE: Disposable nitrile gloves leather gloves or mechanics gloves and safety glasses.  ADM: Forklift is used in an open area.  ADM: Work/rest cycles based on the flag condition.  ADM: Proper lifting procedures.	<b>ACCEPTABLE for sharp objects, eye hazards and carbon monoxide:</b> No significant exposure to carbon monoxide expected based on the nature of exposure as described.  <b>ACCEPTABLE for heat stress:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition.  <b>WMSD RISK FACTORS:</b> No problems reported. There is the potential for ergonomic injuries to occur; training is recommended. Continue to provide regular awareness training on the proper movement and placement of heavy components and parts.  Any ergonomic-related injury should be reported to the command safety officer.  <b>Medical surveillance for Forklift Operator/Material Handling Equipment (710) is required.</b>  <i>*Heavy lifting, carbon monoxide and high heat are reproductive hazards.</i>

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<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Pollution Prevention section is responsible for tracking all HAZMAT on base, the drinking water program, storage tanks, asbestos program and runs the base recycling program. Personnel also make up the emergency response team and the section head cleans the small arms shooting range and conducts asbestos sampling.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Storage tank inspections: Eye and foot hazards  Personnel are responsible for all above ground and underground storage tanks on base. This duty includes performing monthly inspections and releasing water from tanks after a rainfall. . There are 30 above ground tanks and 2 underground tanks.	2	Monthly 5-10 minutes per tank	PPE: Safety glasses and steel toed boots. Disposable nitrile gloves as needed.	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.
Cleaning small arms shooting range: Lead dust* and heat stress*  1. Personnel clean the 100 meter range bullet trap inside the Maintenance Center Albany area in building 2227. This is conducted, at a minimum, every time it rains because existing leaks make the filters wet and unable to properly work. Personnel hose down the room allowing water and lead dust wash down the industrial drain for treatment at the water treatment plant. Personnel then clean out the trough placing the remaining hazardous waste into a 55-gallon drum using a vacuum system for disposal. Personnel also change out three filters.  2. Personnel are required to clean the area before CRS personnel can enter the area to perform maintenance. This includes entering the bullet trap building and hosing down the area to minimize the lead dust.	1	1. At a minimum after each rain 3-4 hours  2. As needed for CRS	PPE: Tyvek body suite, disposable nitrile gloves and a full face respirator with a P100 filter.  ADM: Wet method and hand washing.  ADM: Work/rest cycles based on the flag condition.	<b>UNCERTAIN for lead:</b> Personnel must enter the room to get to the hose in order to wet the area down. Therefore they are unnecessarily exposing themselves to lead dust. It is recommended that the command look into moving or installing a water facet on the outside of the room so that personnel do not have to expose themselves to lead dust. Personnel should also be cognizant to properly remove PPE and wash hands after working in the area to reduce any spread of lead dust and the potential for ingestion.  <b>ACCEPTABLE for heat:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition.  Currently, personnel are wearing a full face respirator with a P100/OV combo cartridge that should be discarded after each use.  <b>Personnel should be placed in a medical surveillance program for respirator use (716). The proper placement of the hose to allow an immediate wetting action, followed by confirmation sampling may allow personnel to be removed from the mandatory use of respirators.</b>  <i>*Lead and high heat are reproductive hazards.</i>



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<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Pollution Prevention section is responsible for tracking all HAZMAT on base, the drinking water program, storage tanks, asbestos program and runs the base recycling program. Personnel also make up the emergency response team and the section head cleans the small arms shooting range and conducts asbestos sampling.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<b>Asbestos work: Asbestos*</b>  Personnel are qualified to perform various aspects of asbestos work to include pulling bulk samples and acting as Asbestos Project Supervisor.  Asbestos removal is now all contracted out.	1 Project Supervisor	As needed	<b>PPE:</b> Disposable nitrile gloves and safety glasses as needed.  <b>ADM:</b> Wet method as needed.	<b>ACCEPTABLE:</b> No significant exposure expected based on the nature of exposure as described.  <b>Note:</b> Past asbestos team members (including the one mentioned here) continue to receive Asbestos Past Worker (115/116) medical surveillance.  <i>*Asbestos is a recognized carcinogen.</i>
<b>Emergency Response: Various chemicals (i.e. petroleum distillates*) and heat stress*</b>  Personnel from each section form an emergency response team in the event of environmental spills/disasters. This can include anything from storage tank spills to a vehicle leaking fuel.	2	As needed 30 minutes-several hours	<b>PPE:</b> Level A/B/C's (Can include the use of a full face respirator).  <b>ADM:</b> Work/rest cycles based on the flag condition.	<b>UNCERTAIN for various chemicals:</b> Specific exposure assessments for emergency response can only be completed on a case-by-case basis. However, generally anticipate low toxicity & limited frequency/duration of exposure.  <b>ACCEPTABLE for heat:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition.  <b>Personnel should be placed in a medical surveillance program for respirator use (716).</b>  Personnel are issued a Scott full face respirator mask only. These are compatible with the SCBA equipment maintained by the fire department. For situations when the mask is used with the P100/OV combo cartridge, the combo cartridge should be discarded after each use.  <i>* Petroleum distillates are known carcinogens.</i> <i>* High heat is a reproductive hazard.</i>

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<b>SHOP OPERATIONS:</b> This shop is part of the Environmental Branch. The Pollution Prevention section is responsible for tracking all HAZMAT on base, the drinking water program, storage tanks, asbestos program and runs the base recycling program. Personnel also make up the emergency response team and the section head cleans the small arms shooting range and conducts asbestos sampling.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Professional/administrative tasks; Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	Any	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				
<b>2. EXPOSURE ASSESSMENT</b> refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: <b>ACCEPTABLE</b> – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). <b>UNCERTAIN</b> – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. <b>UNACCEPTABLE</b> – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. <b>WMSD RISK FACTORS</b> – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. <b>SKIN</b> – The material poses a skin absorption hazard. <b>REPRO HAZARD</b> – The material is a Navy-recognized reproductive hazard. <b>CARCINOGEN</b> – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 11 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 12036/10308/9255 <b>SHOP:</b> I & E DIV Housing Branch <b>SHOP HAZARD PRIORITY RATING:</b> 3			<b>POC:</b> Mr. Kennedy <b>PHONE:</b> 639-5927/5614 <b>TOTAL PERSONNEL:</b> 2 (Civ: 2) <b>MALE:</b> 1 <b>FEMALE:</b> 1	
<p><b>SHOP OPERATIONS:</b> The Housing Branch provides centralized management of all housing available at Marine Corps Logistics Base Albany. This includes Family Housing, Bachelor Housing and Transient Housing, which is addressed in a separate IHA. Personnel are responsible for maintaining various aspects of these housing facilities.</p> <p><b>Family Housing (2 Civ 1 Female):</b> This office includes the Housing Officer and Referral Agent. The Housing officer is responsible for oversight of the contract for housing with Lincoln Military Housing Company. This person is the advocate for the military residents. The Referral agent processes all paperwork and acts as the liaison between the families and Lincoln Military Housing Company. Both personnel are primarily conducting administrative work in an office environment.</p> <p><b>Bachelor Housing (1 Mil Male):</b> This person is responsible for all administrative work for the bachelor housing. This includes assigning rooms, conducting inventory of rooms' pre/post check outs, providing house rules and performing monthly habitability checks of all living spaces.</p> <p><b>Note:</b> This person is not assigned to the I&amp;E division; therefore, his personnel count nor hazards are included here. As a military Marine he should be included in the hearing conservation program due to weapons qualifications.</p>				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Various shop operations: Noise*  The housing officer may go out of the office to visit sites that may be noisy.	1	As needed	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  <i>*Noise is a recognized developmental reproductive hazard.</i>
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	2	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 11 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 12036/10308/9255 <b>SHOP:</b> I & E DIV Housing Branch <b>SHOP HAZARD PRIORITY RATING:</b> 3			<b>POC:</b> Mr. Kennedy <b>PHONE:</b> 639-5927/5614 <b>TOTAL PERSONNEL:</b> 2 (Civ: 2) <b>MALE:</b> 1 <b>FEMALE:</b> 1	
<b>SHOP OPERATIONS:</b> The Housing Branch provides centralized management of all housing available at Marine Corps Logistics Base Albany. This includes Family Housing, Bachelor Housing and Transient Housing, which is addressed in a separate IHA. Personnel are responsible for maintaining various aspects of these housing facilities.				
<b>Family Housing (2 Civ 1 Female):</b> This office includes the Housing Officer and Referral Agent. The Housing officer is responsible for oversight of the contract for housing with Lincoln Military Housing Company. This person is the advocate for the military residents. The Referral agent processes all paperwork and acts as the liaison between the families and Lincoln Military Housing Company. Both personnel are primarily conducting administrative work in an office environment.				
<b>Bachelor Housing (1 Mil Male):</b> This person is responsible for all administrative work for the bachelor housing. This includes assigning rooms, conducting inventory of rooms' pre/post check outs, providing house rules and performing monthly habitability checks of all living spaces.				
<b>Note:</b> This person is not assigned to the I&E division; therefore, his personnel count nor hazards are included here. As a military Marine he should be included in the hearing conservation program due to weapons qualifications.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/ DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				
<b>2. EXPOSURE ASSESSMENT</b> refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: <b>ACCEPTABLE</b> – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). <b>UNCERTAIN</b> – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. <b>UNACCEPTABLE</b> – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. <b>WMSD RISK FACTORS</b> – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. <b>SKIN</b> – The material poses a skin absorption hazard. <b>REPRO HAZARD</b> – The material is a Navy-recognized reproductive hazard. <b>CARCINOGEN</b> – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 11 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 12036/10308/9255 <b>SHOP:</b> I & E DIV Housing Branch-Transient Housing <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Mr. Kennedy <b>PHONE:</b> 639-5927/5614 <b>TOTAL PERSONNEL:</b> 9 (Civ: 9) (Does not include Mr. Kennedy) <b>MALE:</b> 1 <b>FEMALE:</b> 8	
<b>SHOP OPERATIONS:</b> The housing branch provides centralized management of all housing available at Marine Corps Logistics Base Albany. Personnel are responsible for maintaining the Live Oak Lodge housing. This office includes five housekeepers, two laundry workers, one front desk attendant and one inventory clerk.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Various shop operations: Noise*  1. Housekeepers will use a power blower to clean cat walk at 7102.  2. Laundry personnel are around washer and dryers that are running most of the day.	1. 5  2. 2	1. As needed 1x/week 5-10 minutes  2. Daily Up to 8 hours	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  <i>*Noise is a recognized developmental reproductive hazard.</i>
Housekeeping: Dust and bloodborne pathogens (body fluids)  Housekeepers use various chemicals to clean rooms at the Live Oak Lodge. This can include the use of: Clorox bleach, Pine Oil, Glass cleaner, furniture polish and air fresheners. Personnel also dust rooms and pull linens from the rooms. Linens could be soiled with various unknowns.	5	Daily Up to 8 hours	PPE: Disposable nitrile gloves, safety glasses, filtering face piece respiratory (Dust Mask – Voluntary basis).  ADM: Bloodborne pathogen training.	<b>ACCEPTABLE:</b> Personnel exposure to chemicals and dust in excess of the standard is not expected based on the duration and frequency of the operation.  Currently personnel are wearing non-NIOSH approved dust masks when dusting on a voluntary basis. According to OPNAVINST 5100.23 chapter 15, only NIOSH approved filtering face pieces are allowed to be used for voluntary use. This requires the command to purchase NIOSH approved filtering face pieces and annually provide respirator users with the information contained in appendix D of 29 CFR 1910.134 and the limitations stated on the respirator approval label. See executive summary for more details.  All workers should continue to be trained on Bloodborne Pathogens and be offered (or show proof of receiving) the complete Hepatitis B immunization series.  <b>Medical surveillance for Blood and/or Body Fluid (178) is required.</b>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 11 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 12036/10308/9255 <b>SHOP:</b> I & E DIV Housing Branch-Transient Housing <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Mr. Kennedy <b>PHONE:</b> 639-5927/5614 <b>TOTAL PERSONNEL:</b> 9 (Civ: 9) (Does not include Mr. Kennedy) <b>MALE:</b> 1 <b>FEMALE:</b> 8	
<b>SHOP OPERATIONS:</b> The housing branch provides centralized management of all housing available at Marine Corps Logistics Base Albany. Personnel are responsible for maintaining the Live Oak Lodge housing. This office includes five housekeepers, two laundry workers, one front desk attendant and one inventory clerk.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/ DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<b>Laundry: Bloodborne pathogens (body fluids)</b>  Personnel receive laundry from housekeeping, sort, wash/dry and fold. This includes the use of various detergents in a closed loop system to the washers.	2	Daily Up to 8 hours	<b>PPE:</b> Disposable nitrile gloves and safety glasses.  <b>ADM:</b> Bloodborne pathogen training.	<b>ACCEPTABLE:</b> Personnel exposure to chemicals and dust in excess of the standard is not expected based on the duration and frequency of the operation.  All workers should continue to be trained on Bloodborne Pathogens and be offered (or show proof of receiving) the complete Hepatitis B immunization series.  <b>Medical surveillance for Blood and/or body fluid (178) is required.</b>
<b>Housekeeping and Laundry: Heat*/cold stress</b>  Personnel perform various activities that expose them to heat stress or cold stress throughout the day. This includes traveling from house to house, working in rooms that have the heat on high and heat from the driers.	7	Daily Intermittent	<b>PPE:</b> Warm weather clothing for the winter.  <b>ADM:</b> Work/rest cycles based on the flag condition and air conditioned room to fold laundry.	<b>ACCEPTABLE:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition and operations being performed.  Personnel should be encouraged to hydrate while working outside. Personnel are encouraged to seek shelter in the air conditioned areas routinely throughout the day especially during the high heat season.  <i>*High heat is considered a reproductive hazard.</i>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			DATE: 11 May 2016	
RECORDED BY: Whitney Bishop COMMAND: Marine Corps Logistics Base Installation and Environment Division BLDG: 12036/10308/9255 SHOP: I & E DIV Housing Branch-Transient Housing SHOP HAZARD PRIORITY RATING: 2			POC: Mr. Kennedy PHONE: 639-5927/5614 TOTAL PERSONNEL: 9 (Civ: 9) (Does not include Mr. Kennedy) MALE: 1 FEMALE: 8	
SHOP OPERATIONS: The housing branch provides centralized management of all housing available at Marine Corps Logistics Base Albany. Personnel are responsible for maintaining the Live Oak Lodge housing. This office includes five housekeepers, two laundry workers, one front desk attendant and one inventory clerk.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.  This includes the Front desk attendant, inventory clerk and housekeeper lead that can spend 70-80% of her time in the office; the rest of the time is out assisting housekeepers.	3	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
1. USE THE FOLLOWING CONTROL CODES: ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				
2. EXPOSURE ASSESSMENT refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: ACCEPTABLE – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). UNCERTAIN – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. UNACCEPTABLE – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. WMSD RISK FACTORS – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. SKIN – The material poses a skin absorption hazard. REPRO HAZARD – The material is a Navy-recognized reproductive hazard. CARCINOGEN – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>		<b>DATE:</b> 16-18 May 2016		
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Public Works Branch <b>SHOP HAZARD PRIORITY RATING:</b> 2		<b>POC:</b> Branch Head Mr. Slichter and section supervisors (listed below) <b>PHONE:</b> 639-8616 <b>TOTAL PERSONNEL:</b> 26 (Civ: 25) <b>MALE:</b> 24 <b>FEMALE:</b> 2		
<p><b>SHOP OPERATIONS:</b> The public works branch provides oversight and coordination of planning, engineering, construction and maintenance for MCLB Albany and tenant mission essential facilities. This includes Engineering, Planning, Operations and Facility Maintenance. The Public Works Branch also includes Facilities Engineering and Acquisitions Department (FEAD) which is responsible for awarding and administering service, construction and engineering contracts. (FEAD is discussed in a separate IHA).</p> <p><b>Engineering</b> (Mr. Henderson 7 Civ 2 females): This section is responsible for developing projects to include the RFP's, plans and specifications. It includes 5 Engineers and 2 Engineering technicians.</p> <p><b>Planning</b> (Mr. Barrett 3 Civ Males): This section includes the planning supervisor, the Real property analyst responsible for tracking and inventorying all navy property on base and the geographical information system (GIS) mapping specialist that is responsible for mapping the base. All personnel are primarily in the office for the majority of the day.</p> <p><b>Operations</b> (Mr. Barker 14 Civ, 1 Mil, 15 males) This section includes operations (6) (trouble desk), supply (3) and Facilities Support Contracting team (FSC) (6).</p> <p><b>Facility Maintenance</b> (Mr. Dauro 1 Civ) This section includes all of the maintenance sections which are addressed in separate IHAs. Only the supervisor is accounted for here.</p>				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY / DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Various operations: Noise*  1. Engineering-Site visits: Engineers will go out in the field to perform various duties to include pre site inspections.  2. Engineering-Site visits: Engineering technicians are out in the field performing various duties.  3. Operations-Help desk site visits: Personnel may have to go out in the field to gather more information for the help desk ticket or to verify the ticket was completed. This can include entering hazardous noise area.  4. Operations-FSC site visits: Personnel may have to perform site visits to check on work, this could include entering hazardous noise areas.  5. Operations-PM Warranty Asset inspections: Personnel may have to go out to perform warranty asset inspections to include the MDMC.  6. Weapons Qualification: Military personnel qualify on various weapons, e.g. 9mm and M-4, based on grade.	1. 5  2. 2  3. 6  4. 6  5. 1  6. 1	1. Daily 2-3 hours  2. 2-3x/day 2-3 hours  3. As needed Maybe 1x/month Less than 1 hour  4. 2-3x/day Less than 1 hour  5. 2-3x/week Up to 8 hours  6. 2x/year 6-8 hours	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96dBA. Double hearing protection requires the use of earplugs AND muffs.	<p><b>1-4. ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.</p> <p><b>5. UNCERTAIN:</b> Personnel can work for extended periods of time in the MDMC. Personnel are already enrolled in the Hearing Conservation Program; however, further sampling is requested to verify exposures.</p> <p><b>6. UNACCEPTABLE:</b> All personnel who fire weapons, even for just qualification, are recommended for inclusion in the Hearing Conservation Program and its associated medical surveillance.</p> <p><b>Double protection is required during weapons firing on range.</b></p> <p><b>Medical surveillance for Noise (503) is required.</b></p> <p><i>*Noise is a recognized developmental reproductive hazard.</i></p>



<b>INDIVIDUAL HAZARD ASSESSMENT</b>		<b>DATE:</b> 16-18 May 2016		
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Public Works Branch <b>SHOP HAZARD PRIORITY RATING:</b> 2		<b>POC:</b> Branch Head Mr. Slichter and section supervisors (listed below) <b>PHONE:</b> 639-8616 <b>TOTAL PERSONNEL:</b> 26 (Civ: 25) <b>MALE:</b> 24 <b>FEMALE:</b> 2		
<p><b>SHOP OPERATIONS:</b> The public works branch provides oversight and coordination of planning, engineering, construction and maintenance for MCLB Albany and tenant mission essential facilities. This includes Engineering, Planning, Operations and Facility Maintenance. The Public Works Branch also includes Facilities Engineering and Acquisitions Department (FEAD) which is responsible for awarding and administering service, construction and engineering contracts. (FEAD is discussed in a separate IHA).</p> <p><b>Engineering</b> (Mr. Henderson 7 Civ 2 females): This section is responsible for developing projects to include the RFP's, plans and specifications. It includes 5 Engineers and 2 Engineering technicians.</p> <p><b>Planning</b> (Mr. Barrett 3 Civ Males): This section includes the planning supervisor, the Real property analyst responsible for tracking and inventorying all navy property on base and the geographical information system (GIS) mapping specialist that is responsible for mapping the base. All personnel are primarily in the office for the majority of the day.</p> <p><b>Operations</b> (Mr. Barker 14 Civ, 1 Mil, 15 males) This section includes operations (6) (trouble desk), supply (3) and Facilities Support Contracting team (FSC) (6).</p> <p><b>Facility Maintenance</b> (Mr. Dauro 1 Civ) This section includes all of the maintenance sections which are addressed in separate IHAs. Only the supervisor is accounted for here.</p>				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY / DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<b>Weapons Qualification: Lead* dust</b>  Military personnel qualify on various weapons, e.g. 9mm and M-4, based on grade. There is a very small inhalation potential of airborne lead dust during weapons firing and/or cleaning.	1	2x/year 6-8 hours	PPE: Safety glasses.  ADM: Wash hands.	<b>ACCEPTABLE.</b> Based on sampling of similar exposure groups at indoor/outdoor facilities at other installations and the natural dilution that occurs at the outdoor facility. However, it should be noted that personnel should practice good hand hygiene after working with weapons so that an ingestion hazard does not occur.  Note: Air sample results were accessed and evaluated from other facilities that perform similar outdoor shooting.  <i>* Lead is a recognized developmental reproductive hazard.</i>
<b>Engineering site visits: Eye hazards, foot hazards and heat stress*</b>  Personnel may have to perform site visits on active construction sites to check on work.  1. Engineers 2. Engineering Technicians	1. 5 2. 2	1. Daily 2-3 hours  2. 2-3x/day 2-3 hours	PPE: Safety glasses and steel-toed shoes (when required).  ADM: Work/rest cycles based on the flag condition.	<b>ACCEPTABLE for eye and foot hazards:</b> Based on the process description there should be no significant exposures to eye and foot hazards.  <b>ACCEPTABLE for heat stress:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition and operations being performed.  Personnel should be encouraged to hydrate while working outside. Personnel are encouraged to seek shelter in the air conditioned areas routinely throughout the day especially during the high heat season.  <i>*High heat is considered a reproductive hazard.</i>

INDIVIDUAL HAZARD ASSESSMENT		DATE: 16-18 May 2016		
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Public Works Branch <b>SHOP HAZARD PRIORITY RATING:</b> 2		<b>POC:</b> Branch Head Mr. Slichter and section supervisors (listed below) <b>PHONE:</b> 639-8616 <b>TOTAL PERSONNEL:</b> 26 (Civ: 25) <b>MALE:</b> 24 <b>FEMALE:</b> 2		
<b>SHOP OPERATIONS:</b> The public works branch provides oversight and coordination of planning, engineering, construction and maintenance for MCLB Albany and tenant mission essential facilities. This includes Engineering, Planning, Operations and Facility Maintenance. The Public Works Branch also includes Facilities Engineering and Acquisitions Department (FEAD) which is responsible for awarding and administering service, construction and engineering contracts. (FEAD is discussed in a separate IHA). <b>Engineering (Mr. Henderson 7 Civ 2 females):</b> This section is responsible for developing projects to include the RFP's, plans and specifications. It includes 5 Engineers and 2 Engineering technicians. <b>Planning (Mr. Barrett 3 Civ Males):</b> This section includes the planning supervisor, the Real property analyst responsible for tracking and inventorying all navy property on base and the geographical information system (GIS) mapping specialist that is responsible for mapping the base. All personnel are primarily in the office for the majority of the day. <b>Operations (Mr. Barker 14 Civ, 1 Mil, 15 males)</b> This section includes operations (6) (trouble desk), supply (3) and Facilities Support Contracting team (FSC) (6). <b>Facility Maintenance (Mr. Dauro 1 Civ)</b> This section includes all of the maintenance sections which are addressed in separate IHAs. Only the supervisor is accounted for here.				
OPERATIONS AND POTENTIAL HEALTH HAZARDS	NUMBER OF WKRS	FREQUENCY / DURATION OF EXPOSURE	CONTROLS (1)	EXPOSURE ASSESSMENT (2)
<b>Operations-Supply: Eye hazards, foot hazards and heat stress*</b>  Personnel are responsible for maintaining all of the supplies used by I & E. Government personnel are mostly responsible for purchasing, tracking and inventorying all supplies. However, personnel can fill in and assist in the warehouse issuing supplies (PPE, chemicals, parts and tools).	3	As needed	PPE: Safety glasses and steel-toed shoes (when required).  ADM: Work/rest cycles based on the flag condition.	<b>ACCEPTABLE for eye and foot hazards:</b> Based on the process description there should be no significant exposures to eye and foot hazards.  <b>ACCEPTABLE for heat stress:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition and operations being performed.  Personnel should be encouraged to hydrate while working outside. Personnel are encouraged to seek shelter in the air conditioned areas routinely throughout the day especially during the high heat season.  <i>*High heat is considered a reproductive hazard.</i>
<b>Operations-FSC site visits: Eye hazards, foot hazards and heat stress*</b>  Personnel manage subcontractors who perform building maintenance, landscaping/janitorial services and machine maintenance. Personnel may have to perform site visits to check on work.	6	2-3x/day Less than 1 hour	PPE: Safety glasses and steel-toed shoes (when required).  ADM: Work/rest cycles based on the flag condition.	<b>ACCEPTABLE for eye and foot hazards:</b> Based on the process description there should be no significant exposures to eye and foot hazards.  <b>ACCEPTABLE for heat stress:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition and operations being performed.  Personnel should be encouraged to hydrate while working outside. Personnel are encouraged to seek shelter in the air conditioned areas routinely throughout the day especially during the high heat season.  <i>*High heat is considered a reproductive hazard.</i>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 16-18 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5501 <b>SHOP:</b> I & E DIV Public Works Branch <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Branch Head Mr. Slichter and section supervisors (listed below) <b>PHONE:</b> 639-8616 <b>TOTAL PERSONNEL:</b> 26 (Civ: 25) <b>MALE:</b> 24 <b>FEMALE:</b> 2	
<p><b>SHOP OPERATIONS:</b> The public works branch provides oversight and coordination of planning, engineering, construction and maintenance for MCLB Albany and tenant mission essential facilities. This includes Engineering, Planning, Operations and Facility Maintenance. The Public Works Branch also includes Facilities Engineering and Acquisitions Department (FEAD) which is responsible for awarding and administering service, construction and engineering contracts. (FEAD is discussed in a separate IHA).</p> <p><b>Engineering</b> (Mr. Henderson 7 Civ 2 females): This section is responsible for developing projects to include the RFP's, plans and specifications. It includes 5 Engineers and 2 Engineering technicians.</p> <p><b>Planning</b> (Mr. Barrett 3 Civ Males): This section includes the planning supervisor, the Real property analyst responsible for tracking and inventorying all navy property on base and the geographical information system (GIS) mapping specialist that is responsible for mapping the base. All personnel are primarily in the office for the majority of the day.</p> <p><b>Operations</b> (Mr. Barker 14 Civ, 1 Mil, 15 males) This section includes operations (6) (trouble desk), supply (3) and Facilities Support Contracting team (FSC) (6).</p> <p><b>Facility Maintenance</b> (Mr. Dauro 1 Civ) This section includes all of the maintenance sections which are addressed in separate IHAs. Only the supervisor is accounted for here.</p>				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY / DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	All	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<p><b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.</p> <p>Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.</p> <p>Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.</p> <p>Any ergonomic-related injury should be reported to the command safety officer.</p>
<p>1. USE THE FOLLOWING CONTROL CODES:</p> <p>ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation          DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation</p>				
<p>2. EXPOSURE ASSESSMENT refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes:</p> <p>ACCEPTABLE – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL).</p> <p>UNCERTAIN – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment.</p> <p>UNACCEPTABLE – One where the IH will expect the SEG, on average, to be exposed above the selected OEL.</p> <p>WMSD RISK FACTORS – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress.</p> <p>SKIN – The material poses a skin absorption hazard.</p> <p>REPRO HAZARD – The material is a Navy-recognized reproductive hazard.</p> <p>CARCINOGEN – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.</p>				

INDIVIDUAL HAZARD ASSESSMENT			DATE: 12 May 2016	
RECORDED BY: Whitney Bishop COMMAND: Marine Corps Logistics Base Installation and Environment Division BLDG: 55 SHOP: I & E DIV PW-NAVFAC-FEAD SHOP HAZARD PRIORITY RATING: 2			POC: LT Centenseorado PHONE: 639-5959 TOTAL PERSONNEL: 10 (Civ: 9) MALE: 6 FEMALE: 4	
SHOP OPERATIONS: This command is not actually assigned to the I & E division; however, it is accounted for under this report. The Albany office consists of 2 construction managers, 2 engineering technicians, a contracting officer, 3 contracting specialists and a procurement technician. They are responsible for awarding and administering service, construction and engineering contracts at Marine Corps Logistics Base, Albany, Ga.; Naval Support Activity, Athens, Ga.; and Naval Air Station, Atlanta, Ga. These personnel are primarily in the office but some may go out in the field to perform site visits.				
OPERATIONS AND POTENTIAL HEALTH HAZARDS	NUMBER OF WKRS	FREQUENCY/ DURATION OF EXPOSURE	CONTROLS (1)	EXPOSURE ASSESSMENT (2)
Various operations: Noise*  1. Site visits: The construction manager may visit an active construction site to see how things are going.  2. Site visits: Engineering technicians are out in the field making sure the contractor is following plans and safety protocols.	1. 1  2. 2	1. 1x/week Less than 1 hour  2. Daily Up to 6 hours	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>1 ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  <b>2 UNCERTAIN:</b> Based on duration of exposure. Sampling is needed.  <i>*Noise is a recognized developmental reproductive hazard.</i>
Site visits: Eye hazards, foot hazards and heat stress*  1. The construction manager may visit an active construction site to see how things are going.  2. Engineering technicians are out in the field making sure the contractor is following plans and safety protocols.  3. The contracting officer will go out to perform an initial site visit.	1. 1  2. 2  3. 1	1. 1x/week Less than 1 hour  2. Daily Up to 6 hours  3. As needed	PPE: Safety glasses and steel toed shoes (when required).  ADM: Work/rest cycles based on the flag condition.	<b>ACCEPTABLE for eye and foot hazards:</b> Based on the process description there should be no significant exposures to eye and foot hazards.  <b>ACCEPTABLE for heat stress:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition and operations being performed.  Personnel should be encouraged to hydrate while working outside. Personnel are encouraged to seek shelter in the air conditioned areas routinely throughout the day especially during the high heat season.  <i>*High heat is considered a reproductive hazard.</i>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 12 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 55 <b>SHOP:</b> I & E DIV PW-NAVFAC-FEAD <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> LT Centenseorado <b>PHONE:</b> 639-5959 <b>TOTAL PERSONNEL:</b> 10 (Civ: 9) <b>MALE:</b> 6 <b>FEMALE:</b> 4	
<b>SHOP OPERATIONS:</b> This command is not actually assigned to the I & E division; however, it is accounted for under this report. The Albany office consists of 2 construction managers, 2 engineering technicians, a contracting officer, 3 contracting specialists and a procurement technician. They are responsible for awarding and administering service, construction and engineering contracts at Marine Corps Logistics Base, Albany, Ga.; Naval Support Activity, Athens, Ga.; and Naval Air Station, Atlanta, Ga. These personnel are primarily in the office but some may go out in the field to perform site visits.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/ DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	All	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				
<b>2. EXPOSURE ASSESSMENT</b> refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: <b>ACCEPTABLE</b> – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). <b>UNCERTAIN</b> – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. <b>UNACCEPTABLE</b> – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. <b>WMSD RISK FACTORS</b> – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. <b>SKIN</b> – The material poses a skin absorption hazard. <b>REPRO HAZARD</b> – The material is a Navy-recognized reproductive hazard. <b>CARCINOGEN</b> – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 11 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2210/2299 <b>SHOP:</b> I & E DIV PW-FM Boiler <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Mr. Prather <b>PHONE:</b> 6395612/5617 <b>TOTAL PERSONNEL:</b> 5 (Civ: 5) <b>MALE:</b> 5 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. Personnel operate the boilers that provide steam and air to LOGCOM's Marine Depot Maintenance Command (MDMC). Personnel work in 3 shifts and make hourly rounds to check the status of the boilers and associated equipment. They also perform various samples to test the water conditions. Personnel only operate and monitor the boilers; all major repair work is performed by contractor personnel. The supervisors no longer operate or monitor the propane receiving and mixing station located at building 5200 as it is under the process of being demolished.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<b>Boiler checks: Noise*</b>  Personnel walk throughout the boiler rooms on an hourly basis to check meters and grab samples.  See attachment (4) for sound level measurements and dosimetry results.	5	7-8x/day 10 minutes each time	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96 dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>UNACCEPTABLE:</b> Based on sampling. Personnel may be exposed above the DoD standard of 85 dBA.  <b>Medical surveillance for Noise (503) is required.</b>  <i>*Noise is a recognized developmental reproductive hazard.</i>
<b>Water samples: Potassium iodide*</b>  Personnel pull a sample every 8-hours to perform various tests to include alkalinity, chloride, sulfite test, pH and conductivity. Personnel use various chemicals to include (Gallic acid powder, phenolphthalein indicator solution (methyl alcohol), methyl orange solution, potassium chromate indicator solution (potassium chromate), hardness titrating solution, silver nitrate, sulfuric acid, potassium iodide-iodate titrating solution (potassium iodide*)) in small amounts to perform the various tests.  Personnel also pull 2 samples on water softeners every 4 hours to perform a hardness test.	5	3x/ day 10 minutes each time	PPE: Disposable nitrile gloves, goggles and face shield as needed.	<b>ACCEPTABLE:</b> Based on the process description and the small amounts of the chemicals used, there should be no significant exposures.  <i>*Potassium iodide is a recognized developmental reproductive hazard.</i>

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Adjusting water chemistry: Sodium sulfite, sodium sulfate and morpholine  Personnel may add sodium chloride salt, TSC-803(Sodium Lignosulfonate), TSC-808L (sodium sulfite and sodium sulfate), TSC-809 (morpholine), or TSC 804L (sodium carbonate and Sodium Lignosulfonate) to the system based on test results.	5	As needed	PPE: Disposable nitrile gloves, goggles and face shield as needed.  ENG: Closed loop system.	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.
Checking condensate pit: Oxygen deficiency  Personnel enter a non-permit required confined space to check the condensate pit. Personnel follow all safety protocols to include continuously monitoring the area for LEL and oxygen content via a permanently installed meter and having 2 personnel (one inside, one outside-watch).	5	Daily >3 minutes for check 5-10 minutes for sample	PPE: Hard hat and harness.  ADM: Opened confined space that allows for natural ventilation.	<b>ACCEPTABLE:</b> Based on proper adherence to established confined space protocols. The confined space has a large open grate over the opening allowing for the space to continually be filled with natural air.
Adjusting water chemistry: Work-related musculoskeletal disorders (WMSD) heavy lifting*  Personnel may have to move and lift several 50-pound bags of salt and/or move 55-gallon barrels of water treatment chemicals.	5	1-2x/week 10-15 minutes	ADM: Proper lifting techniques.  ENG: Hydraulic pump jack.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  <i>*Heavy lifting is a developmental reproductive hazard.</i>

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Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	All	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
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<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2285 <b>SHOP:</b> I & E DIV PW-FM CRS <b>SHOP HAZARD PRIORITY RATING:</b> 1			<b>POC:</b> Charles Merritt and Ricky Stallings <b>PHONE:</b> 639-5628 <b>TOTAL PERSONNEL:</b> 14 (Civ: 14) <b>MALE:</b> 14 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. The Central Repair Shop (CRSs) responds to maintenance tickets for the LOGCOM's Marine Depot Maintenance Command (MDMC) area. There is one plumber, four electricians and nine mechanics on staff that perform a variety of duties to include minor plumbing, electrical work, welding, etc.  Personnel no longer clean or change filters in any of the paint or blast booths on site; this is all contracted out. No one from this shop performs HVAC work; personnel now work out of the PW-FM HVAC/Utilities shop.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY / DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Various shop operations: Noise*  Personnel use various power tools and work in industrial areas inside the maintenance center. Personnel are exposed to hazardous noise on a routine basis.  This can also include the use of a vacuum pump truck to clean water out of man holes.  See attachment (4) for sound level measurements and dosimetry results.	14	Daily Up to 8 hours	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96 dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>UNACCEPTABLE:</b> Based on sampling. Personnel may be exposed above the DoD standard of 85 dBA.  <b>Medical surveillance for Noise (503) is required.</b>  <i>*Noise is a recognized developmental reproductive hazard.</i>
Electrical work: Ethanol(ethyl alcohol)*, petroleum distillate* 64742-53-6, toluene* and electric shock  Personnel respond to maintenance tickets within the MDMC area and include installing, modifying and troubleshooting equipment. This can include the use of Misty contact & circuit board cleaner (trans 1, 2-dichloroethylene and ethanol*), 3M Super weather strip and gasket adhesive (methyl ethyl ketone, toluene*) and Ideal yellow 77 wire pulling lubricant (petroleum distillate* 64742-53-6).	4 electricians 4 mechanics	As required by tickets 1x/week Less than 1 hour per ticket	PPE: Disposable nitrile gloves during chemical use.  ADM: Follows NFPA 70E rules to include lockout/tagout.	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.  <i>* Ethanol (ethyl alcohol) is a recognized developmental reproductive hazard if ingested.</i> <i>*Toluene is a recognized developmental reproductive hazard.</i> <i>* Petroleum distillate is a listed carcinogen.</i>

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<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY / DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Plumbing: Sulfuric acid and phosphoric acid and polyvinyl chloride  Personnel respond to maintenance tickets within the MDMC area to include:  1. Personnel use heavy duty liquid drainer (sulfuric acid) to clear drains.  2. Personnel use United 577 urinal line remover or CLR Calcium Lime and Rust remover (lactic acid) to clean water/drain lines.  3. Personnel perform preventive maintenance (PM) on ice machines to include cleaning water filters and blowing out air filters. This can include the use of Atlantic Chemical Nickel Safe Ice machine cleaner (phosphoric acid) or Super Kool ice machine cleaner (phosphoric acid) as needed.	2 Plumbers	1. 1-2x/week 10-15 minutes  2. 1-2x/month 10-15 minutes  3. 1-5x/month 30 minutes each	<b>PPE:</b> Disposable nitrile gloves and goggles as needed.  <b>ADM:</b> Performed in an open area (natural ventilation).	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.
Maintenance-Small arms shooting range: Lead dust*  Personnel may have to perform various types of minor maintenance inside the MDMC shooting range to include the bullet trap at the end of the range. This is mostly working on the electrical panels or on the building structure.	Any	As needed	<b>ADM:</b> Environmental shop personnel will wet down and clean the area before entry wearing required PPE, wash hand upon existing.  <b>PPE:</b> Disposable nitrile gloves, Tyvek suite and safety glasses/goggles as needed.	<b>ACCEPTABLE:</b> Based on the process description and the environmental shop wetting the area down first, there should be no significant inhalation exposures; however, personnel should be cognizant to wash hands after working in the area to remove and lead from their hands to eliminate an ingestion hazard.  <i>*Lead is a developmental reproductive hazard.</i>

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Maintenance calls: Petroleum distillate*, methylene chloride* and polyvinyl chloride  Personnel respond to maintenance tickets within the MDMC area and can include the use of various greases and lubricants:  1. LPS3 Heavy duty rust inhibitor (petroleum distillate*) used when fabricating new materials.  2. CRC 3-36 Multipurpose lubricant (petroleum distillate*) for lubricating parts.  3. Loctite 24221 removable threadlocker (Cumene Hydroperoxide) for lubricating parts.  4. Safety solvent degreaser (methylene chloride*) used to clean equipment before preventative maintenance.  5. NAPA HD 30W Lubrication oil (Petroleum Distillates 64742-54-7*) for PM on compressors.	9 Mechanics	1. 2-3x/year 1-2 hours  2. Daily 5-10 minutes  3. Daily 5-10 minutes  4. 1-2x/week 30 minutes  5. 1-2x/year 30 minutes	<b>PPE:</b> Disposable nitrile gloves as needed.	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.  <i>* Petroleum distillate and methylene chloride are listed carcinogens.</i>

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<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. The Central Repair Shop (CRSs) responds to maintenance tickets for the LOGCOM's Marine Depot Maintenance Command (MDMC) area. There is one plumber, four electricians and nine mechanics on staff that perform a variety of duties to include minor plumbing, electrical work, welding, etc.  Personnel no longer clean or change filters in any of the paint or blast booths on site; this is all contracted out. No one from this shop performs HVAC work; personnel now work out of the PW-FM HVAC/Utilities shop.				
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Maintenance calls: Crystalline silica* and petroleum distillates 64742-52-5*  Personnel respond to maintenance tickets within the MDMC area and can include:  1. Sealing windows and doors using: Dow corning 8641 Silicone rubber seal-clear (ethyltriacetoxysilane) or Sherwin Williams 3006 White lightening adhesive caulk (solvent naphtha-64742-88-7).  2. Patching roads and filling cracks using Flexset rapid concrete repair (4,4'-diphenylmethane diisocyanate 101-68-8) or 3M 62-2649-1233-8 concrete self-leveling kit gray 2 part (4,4'-diphenylmethane diisocyanate 101-68-8 and Polyether Polyol).  3. Fill gaps in non-load bearing foundations using Euclid Chemical 065A Eucopatch (crystalline silica *)  4. Replacing and installing floor tiles using Henry 430 floor tile cement (petroleum distillates 64742-52-5*)  5. Personnel can use various PVC chemicals when repairing or installing PVC piping: 30795 PVC cleaner (methyl ethyl ketone and alcohol) and 30876 PCV clear cement (polyvinyl chloride).	9 Mechanics	1. 2-3x/week 1-2 hours  2. 2-3x/month >1 hour  3. 1x/year 1-2 hours  4. Replacing: as needed >30 minutes Install: as needed Several days Up to 8 hours  5. 2-3x/week 1-2 hours	PPE: Disposable nitrile gloves as needed.	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.  <i>* Petroleum distillate and crystalline silica are listed carcinogens.</i>

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<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY / DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<p>Equipment PMs: Electrical shock, pinch/crush hazards, dust</p> <p>Personnel provide preventative maintenance measures to various pieces of equipment in the maintenance center. This includes performing an operational check to check all moving parts and replacing parts as needed.</p> <p>Machines include but not limited to: arbor press, band saws, bore punch machines, brake presses, buffer benches, drill presses, drying ovens, exhaust fans, grinders, honing machines, hydraulic presses, lathes, milling machines, parts washers and punch machines.</p>	9 Mechanics	2-3x/month 10-60 minutes	<p>ADM: Lock out/ tag out.</p> <p>ADM: Wipe the area down with a wet cloth to remove dust hazard.</p>	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.
<p>Maintenance-Blast cabinets: Heavy metals dust (cadmium*, hexavalent chromium* and lead*) and blast media</p> <p>Personnel perform preventative and corrective maintenance on MDMC blast cabinets. This can include changing the gloves inside the glove box and cleaning media disposal bins.</p>	4	As needed until put on contract	<p>PPE: Disposable nitrile gloves, Tyvek body suite and full face respirator with a P100 filter.</p>	<p><b>UNCERTAIN:</b> Based on the process and known hazards. Therefore personnel will continue to wear a respirator when performing this operation until it is added to the contract. <b>Air samples are needed to better assess exposures to hexavalent chromium and other metals</b></p> <p>Personnel wear a full face respirator with a P100/OV combo cartridge discarded after each use.</p> <p><b>Personnel should be placed in a medical surveillance program for respirator use (716) if they continue to use the respirator.</b></p> <p><i>*Cadmium and hexavalent chromium are listed carcinogens. *Lead is a recognized developmental reproductive hazard.</i></p>

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<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY / DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Maintenance-steam lines: Burns and oxygen deficiency  Personnel respond to maintenance tickets within the MDMC area and can include:  1. Personnel work with above ground steam lines (burns) fixing leaks or fabricating additions to the lines.  2. Working in confined spaces: Personnel enter a permit required confined spaces to work on steam lines. Personnel follow all safety protocols to include continuously monitoring the area for LEL and oxygen content via an MX4 meter, having 2 personnel (one inside, one outside-watch). Personnel may have to get a burn permit if brazing is needed (1x in the last 2 years).	1. 4  2. 5	1. Quarterly 1 hour  2. 1x/month 4-6 hours	1. ADM: Lock out/ tag out.  PPE: Leather gloves as needed.  2. ADM: SOP for confined space entry and Lock out/tag out.  PPE: Hard hat and harness.	<b>ACCEPTABLE:</b> Based on the process description there should be minimal exposures with proper adherence to established confined space protocols.
Maintenance-Painting: Acetone, butyl acetate, VM&P naphtha and carbon black*  Personnel can use various aerosol paints to paint stands, plates or brackets.  Aerosol paints: 37875 Eco Sure Flat White (acetone, butyl acetate, VM&P naphtha) 17038 Eco Sure Gloss black (acetone, butyl acetate, VM&P naphtha and carbon black) 11105 Eco Sure Red (acetone, butyl acetate and butyl alcohol)	All	2x/week 1 hour (includes drying times)	PPE: Disposable nitrile gloves and goggles as needed.  ADM: Performed in an open area (natural ventilation).	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.  Personnel stated that they will sometimes use MDMC paint booths.  <i>*Carbon black is a listed carcinogen.</i>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 11 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2285 <b>SHOP:</b> I & E DIV PW-FM CRS <b>SHOP HAZARD PRIORITY RATING:</b> 1			<b>POC:</b> Charles Merritt and Ricky Stallings <b>PHONE:</b> 639-5628 <b>TOTAL PERSONNEL:</b> 14 (Civ: 14) <b>MALE:</b> 14 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. The Central Repair Shop (CRSs) responds to maintenance tickets for the LOGCOM's Marine Depot Maintenance Command (MDMC) area. There is one plumber, four electricians and nine mechanics on staff that perform a variety of duties to include minor plumbing, electrical work, welding, etc.  Personnel no longer clean or change filters in any of the paint or blast booths on site; this is all contracted out. No one from this shop performs HVAC work; personnel now work out of the PW-FM HVAC/Utilities shop.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY / DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<p>Maintenance-Welding: Hexavalent chromium*, aluminum, cadmium*, thorium (alpha particles*) and UV radiation*</p> <p>Personnel are trained to provide minor spot repair welding and small fabrication (signs, baskets, plates and brackets) operations. This can include SMAW (Carbon steel rods), MIG and TIG welding on aluminum and stainless steel.</p> <p>Currently personnel use Thoriated Tungsten welding tips. Thoriated tungsten emits alpha particles (radiation) can be spread and then ingested when improperly sharpened generating fine powder grounds. Personnel sharpen these tips by using an industrial sander that is open and unventilated. This sharpening method is not advised.</p>	2	2x/week Up to 2-3 hours  Stainless steel: >30 minutes	<p>PPE: UV welding helmet, gloves and jacket.</p> <p>ENG: UV filtering curtains and /or barriers.</p>	<p><b>UNCERTAIN:</b> Personnel should be using an enclosed and ventilated sander/grinder or purchase lanthanated rods to prevent exposures to alpha particles. Personnel should also wash hands to prevent accidental ingestion of grounds that emit alpha particles. Ensure any future use of thoriated-tungsten rods is coordinated with the installation's radiation safety officer (RSO).</p> <p>There is a large exhaust fan for the warehouse next to the welding table. Personnel should be cautious to not stand with their back to the fan blowing welding fumes into their face. Management should look into obtaining a local exhaust ventilation system specific for welding.</p> <p><b>Air samples are needed to better assess exposures to hexavalent chromium and other metals during SMAW and MIG welding.</b></p> <p><i>*Hexavalent chromium, cadmium, alpha radiation particles and UV radiation are listed carcinogens.</i></p>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 11 May 2016	
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<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. The Central Repair Shop (CRSs) responds to maintenance tickets for the LOGCOM's Marine Depot Maintenance Command (MDMC) area. There is one plumber, four electricians and nine mechanics on staff that perform a variety of duties to include minor plumbing, electrical work, welding, etc.  Personnel no longer clean or change filters in any of the paint or blast booths on site; this is all contracted out. No one from this shop performs HVAC work; personnel now work out of the PW-FM HVAC/Utilities shop.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY / DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Maintenance calls-Painting: Ethylbenzene, carbon black and crystalline silica*  Personnel can use various latex/oil based paints to paint fabricated items with a brush.  Sherwin William Mineral spirit paint thinner (mineral spirits 64742-88-7) -Sherwin Williams B79W10Pro Block oil primer (VM&P naphtha 64742-89-8 and crystalline silica *(quartz and cristobalite)) B31W2651 Latex White B54B11 Ind Straight Black (mineral spirits 64742-88-7, ethylbenzene* and carbon black*) B54W101 Ind Pure White (mineral spirits 64742-88-7 and ethylbenzene*) B34Y37 Safety Yellow (mineral spirits 64742-88-7 and ethylbenzene*) B54T104 Ultra Deep Base (mineral spirits 64742-88-7 and ethylbenzene*) B25W25 Block Filler White (silica quartz*) B51W20 Pro-Block Primer Sealer (cristobalite*) B51W8050 Adhesion Primer (silica quartz*) -PPG Industries 7-814 I/E Industrial Gloss oil pastel (solvent naphtha-64742-95-6) 7-815 I/E Ind gloss oil midtone (solvent naphtha-64742-95-6) 7-808 I/E Ind Nat Gloss Safety Yellow (solvent naphtha-64742-88-7 and ethylbenzene*) 7-852 I/E Rust Inhibitive Primer White(solvent naphtha-64742-88-7, ethylbenzene* and silica quartz*)	9 Mechanics	2x/year Less than 1 hour	<b>PPE:</b> Disposable nitrile gloves and goggles as needed.  <b>ADM:</b> Performed in an open area (natural ventilation).	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.  Crystalline silica is only a hazard if the paint is sanded and a dust is created. As long as personnel are not sanding the painted surfaces there should be no significant exposures.  Personnel stated that they will sometimes use MDMC paint booths.  <i>*Carbon black and crystalline silica (quartz and cristobalite) are listed carcinogens.</i>



<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 11 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2285 <b>SHOP:</b> I & E DIV PW-FM CRS <b>SHOP HAZARD PRIORITY RATING:</b> 1			<b>POC:</b> Charles Merritt and Ricky Stallings <b>PHONE:</b> 639-5628 <b>TOTAL PERSONNEL:</b> 14 (Civ: 14) <b>MALE:</b> 14 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. The Central Repair Shop (CRSs) responds to maintenance tickets for the LOGCOM's Marine Depot Maintenance Command (MDMC) area. There is one plumber, four electricians and nine mechanics on staff that perform a variety of duties to include minor plumbing, electrical work, welding, etc.  Personnel no longer clean or change filters in any of the paint or blast booths on site; this is all contracted out. No one from this shop performs HVAC work; personnel now work out of the PW-FM HVAC/Utilities shop.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY / DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Shop operations: Heat stress* and UV radiation*  Personnel spend 50-80% of the time outside or in spaces without air condition.	All	Daily Up to 8 hours	<b>PPE:</b> Sunscreen (>30 SPF), UV protective sunglasses.  <b>ADM:</b> Work/rest cycles based on the flag condition.	<b>ACCEPTABLE:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition.  Personnel should be provided PPE to protect against UV radiation including sunglasses. Personnel exposed to UV radiation may develop pinguecula or pterygium (growths on the eye's cornea). Personnel exposed to UV radiation are more likely to develop skin cancer. Personnel should be encouraged to hydrate while working outside. Personnel are encouraged to seek shelter in the air conditioned areas routinely throughout the day especially during the high heat season.  <i>*High heat is considered a reproductive hazard.</i> <i>*UV radiation is a recognized carcinogen.</i>
Shop operations: Work-related musculoskeletal disorders (WMSD) heavy lifting* and carbon monoxide*  Personnel may have to lift/move/carry heavy objects in the warehouse or on job site; therefore personnel can use either diesel or gas forklifts (no maintenance is performed).	All  11 with forklift license	Varies Dispersed throughout the day	<b>ENG:</b> Use of forklifts and hydraulic lifts.  <b>ADM:</b> Proper lifting procedures and forklift is used in an open area.	<b>WMSD RISK FACTORS:</b> No problems reported. There is the potential for ergonomic injuries to occur; training is recommended. Continue to provide regular awareness training on the proper movement and placement of heavy components and parts.  Any ergonomic-related injury should be reported to the command safety officer.  <b>Medical surveillance for Forklift Operator/Material Handling Equipment (710) is required.</b>  <i>*Heavy lifting and carbon monoxide are developmental reproductive hazards.</i>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 11 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2285 <b>SHOP:</b> I & E DIV PW-FM CRS <b>SHOP HAZARD PRIORITY RATING:</b> 1			<b>POC:</b> Charles Merritt and Ricky Stallings <b>PHONE:</b> 639-5628 <b>TOTAL PERSONNEL:</b> 14 (Civ: 14) <b>MALE:</b> 14 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. The Central Repair Shop (CRSs) responds to maintenance tickets for the LOGCOM's Marine Depot Maintenance Command (MDMC) area. There is one plumber, four electricians and nine mechanics on staff that perform a variety of duties to include minor plumbing, electrical work, welding, etc.  Personnel no longer clean or change filters in any of the paint or blast booths on site; this is all contracted out. No one from this shop performs HVAC work; personnel now work out of the PW-FM HVAC/Utilities shop.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY / DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	2	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				
<b>2. EXPOSURE ASSESSMENT</b> refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: <b>ACCEPTABLE</b> – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). <b>UNCERTAIN</b> – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. <b>UNACCEPTABLE</b> – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. <b>WMSD RISK FACTORS</b> – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. <b>SKIN</b> – The material poses a skin absorption hazard. <b>REPRO HAZARD</b> – The material is a Navy-recognized reproductive hazard. <b>CARCINOGEN</b> – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 19 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2285 <b>SHOP:</b> I & E DIV PW-FM High Voltage Electricity <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Mr. Dauro <b>PHONE:</b> 639-2 <b>TOTAL PERSONNEL:</b> 2 (Civ: 2) (does not include Mr. Dauro) <b>MALE:</b> 2 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. The High Voltage Electricity shop is responsible for all above ground electricity on base. Personnel can assist personnel at CRS (see individual hazard assessment).				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<b>Electrical work: Noise*</b>  Personnel may transient hazardous noise areas to get to the work site or provide support to CRS at the MDMC.	2	As needed	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  <i>*Noise is a recognized developmental reproductive hazard.</i>
<b>Electrical work: Ethanol (ethyl alcohol)*, polyvinyl chloride and electric arching</b>  Personnel are responsible for all high voltage electricity on base and can include installing, modifying and troubleshooting equipment as needed and performing visual inspections at the main substation.  This can include the use of Misty contact & circuit board cleaner (trans 1, 2-dichloroethylene and ethanol*) and 30876 PCV clear cement (polyvinyl chloride).  This can also include filling the SF6 gas used on the High voltage switches. This is a closed loop system.	2 (Mr. Douro can assist)	Daily Up to 7 hours	PPE: Disposable nitrile gloves during chemical use.  ADM: Follows NFPA 70E rules to include lockout/tagout.	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.  <i>* Ethanol (ethyl alcohol) is a recognized developmental reproductive hazard if ingested.</i>

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<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2285 <b>SHOP:</b> I & E DIV PW-FM High Voltage Electricity <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Mr. Dauro <b>PHONE:</b> 639-2 <b>TOTAL PERSONNEL:</b> 2 (Civ: 2) (does not include Mr. Dauro) <b>MALE:</b> 2 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. The High Voltage Electricity shop is responsible for all above ground electricity on base. Personnel can assist personnel at CRS (see individual hazard assessment).				
OPERATIONS AND POTENTIAL HEALTH HAZARDS	NUMBER OF WKRS	FREQUENCY/ DURATION OF EXPOSURE	CONTROLS (1)	EXPOSURE ASSESSMENT (2)
Confined space entry: Oxygen deficiency  Personnel may have to enter a confined space to work on electrical lines still below ground. Personnel follow all safety protocols to include continuously monitoring the area for LEL and oxygen content, having 2 personnel (one inside, one outside-watch).	2 (Mr. Douro can assist)	As needed 2x/year 2-3 hours	PPE: Hard hat and harness.  ADM: Lock out/tag out.	<b>ACCEPTABLE:</b> Based on proper adherence to established confined space protocols.
Shop operations: Heat stress* and UV radiation*  Personnel spend 50-80% of the time outside or in spaces without air condition.	All	Daily Up to 8 hours	PPE: Sunscreen (>30 SPF), UV protective sunglasses.  ADM: Work/rest cycles based on the flag condition.	<b>ACCEPTABLE:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition.  Personnel should be provided PPE to protect against UV radiation including sunglasses. Personnel exposed to UV radiation may develop pinguecula or pterygium (growths on the eye's cornea). Personnel exposed to UV radiation are more likely to develop skin cancer. Personnel should be encouraged to hydrate while working outside. Personnel are encouraged to seek shelter in the air conditioned areas routinely throughout the day especially during the high heat season.  <i>*High heat is considered a reproductive hazard.</i> <i>*UV radiation is a recognized carcinogen.</i>
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				
<b>2. EXPOSURE ASSESSMENT</b> refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: <b>ACCEPTABLE</b> – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). <b>UNCERTAIN</b> – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. <b>UNACCEPTABLE</b> – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. <b>WMSD RISK FACTORS</b> – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. <b>SKIN</b> – The material poses a skin absorption hazard. <b>REPRO HAZARD</b> – The material is a Navy-recognized reproductive hazard. <b>CARCINOGEN</b> – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 10 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5500 <b>SHOP:</b> I & E DIV PW-FM HVAC/Utilities <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Mr. Hundley <b>PHONE:</b> 639-6203 <b>TOTAL PERSONNEL:</b> 9 (Civ: 9) <b>MALE:</b> 9 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. This shop provides preventative maintenance on all HVAC and water for the base. One person is responsible for maintaining the digital directive control (DDC) computer system. This system controls all of the HVAC systems on base. Under the HVAC section there are four personnel that provide various maintenance calls throughout the base. Two personnel are responsible for the buildings located on base proper and two personnel are responsible for the buildings in the LOGCOM's Marine Depot Maintenance Command (MDMC). Under the Utilities section there are two personnel that are responsible for water maintenance on base proper and include the well houses, pool and boilers.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Various shop operations: Noise*  1. HVAC personnel use various power tools and work in industrial areas outside and inside the MDMC. Personnel are exposed to hazardous noise on a routine basis.  2. Utilities personnel perform daily checks of the well houses and boiler houses.  3. One person manages the DDC system and is mostly in the office; however, he may have to go into HVAC rooms periodically to check monitors.  See attachment (4) for sound level measurements and dosimetry results.	1. 6  2. 2  3. 1	1. Daily Up to 8 hours  2. Daily Up to 8 hours  3. As needed Up to 3 hours	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96 dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>1-2. UNACCEPTABLE:</b> Based on sampling. Personnel may be exposed above the DoD standard of 85 dBA.  <b>Medical surveillance for Noise (503) is required.</b>  <b>3. ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  <i>*Noise is a recognized developmental reproductive hazard.</i>
Shop operations: Heat stress* and UV radiation*  Personnel spend 50-80% of the time outside or in spaces without air condition.	9	Daily Up to 8 hours	PPE: Sunscreen (>30 SPF), UV protective sunglasses.  ADM: Work/rest cycles based on the flag condition.	<b>ACCEPTABLE:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition.  Personnel should be provided PPE to protect against UV radiation including sunglasses. Personnel exposed to UV radiation may develop pinguecula or pterygium (growths on the eye's cornea). Personnel exposed to UV radiation are more likely to develop skin cancer. Personnel should be encouraged to hydrate while working outside. Personnel are encouraged to seek shelter in the air conditioned areas routinely throughout the day especially during the high heat season.  <i>*High heat is considered a reproductive hazard.</i> <i>* UV radiation is a recognized carcinogen.</i>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 10 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5500 <b>SHOP:</b> I & E DIV PW-FM HVAC/Utilities <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Mr. Hundley <b>PHONE:</b> 639-6203 <b>TOTAL PERSONNEL:</b> 9 (Civ: 9) <b>MALE:</b> 9 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. This shop provides preventative maintenance on all HVAC and water for the base. One person is responsible for maintaining the digital directive control (DDC) computer system. This system controls all of the HVAC systems on base. Under the HVAC section there are four personnel that provide various maintenance calls throughout the base. Two personnel are responsible for the buildings located on base proper and two personnel are responsible for the buildings in the LOGCOM's Marine Depot Maintenance Command (MDMC). Under the Utilities section there are two personnel that are responsible for water maintenance on base proper and include the well houses, pool and boilers.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/ DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<p>HVAC maintenance: Petroleum distillate*, polyvinyl chloride and dust</p> <p>Personnel respond to maintenance tickets and can include: changing AC filters, cleaning AC coils, refilling Freon in AC units or fan motor repairs.</p> <p>1. Personnel use Cal-brite (Ammonium Bifluoride) to clean AC units outside and Coil Klean (Isobutane) for inside. Personnel can use LPS3 Heavy duty rust inhibitor (petroleum distillate* 64742-54-7) or PB blaster (petroleum distillates* 64742-65-0) as needed to lubricate parts or Mystic JT-6 Multipurpose grease No 2 (SDS does not list any hazardous ingredients) as a lubricant on motor and fan bearings.</p> <p>2. Personnel may use Oatey PVC products to repair drain pipes on AC units: 30795 PVC cleaner (methyl ethyl ketone and alcohol) and 30876 PCV clear cement (polyvinyl chloride).</p> <p>3. Personnel change out A/C filters.</p> <p>See attachment (5) for air sample results.</p>	6	<p>1. Up to 5 units daily 15 minutes per unit</p> <p>2. 2-3x/year 1 hour</p> <p>3. As needed Less than 5 minutes</p>	<p>PPE: Disposable nitrile gloves and goggles as needed.</p>	<p><b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.</p> <p><i>* Petroleum distillates are known carcinogens.</i></p>

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<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. This shop provides preventative maintenance on all HVAC and water for the base. One person is responsible for maintaining the digital directive control (DDC) computer system. This system controls all of the HVAC systems on base. Under the HVAC section there are four personnel that provide various maintenance calls throughout the base. Two personnel are responsible for the buildings located on base proper and two personnel are responsible for the buildings in the LOGCOM's Marine Depot Maintenance Command (MDMC). Under the Utilities section there are two personnel that are responsible for water maintenance on base proper and include the well houses, pool and boilers.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/ DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Water maintenance: Liquid chlorine, fluoride and hydrochloric acid  1. Personnel monitor all of the well houses on base; this includes taking readings and performing a Chlorine test daily. Personnel use liquid chlorine and fluoride in the wells. These are on a closed loop system with minimal contact unless performing maintenance on the pumps/hoses. Personnel may have to add salt to water softeners. Personnel use Mystic JT-6 Multipurpose grease No 2 (SDS does not list any hazardous ingredients) as a lubricant when needed.  2. Personnel are responsible for maintaining the base pool. The main pool is on a salt water system (sodium chloride) and chlorine tablets and hydrochloric acid as back up when needed to adjust the pH of the pool. The splash pad uses liquid chlorine and hydrochloric acid. These are on a closed loop system with minimal contact unless performing maintenance on the pumps/hoses.	2	Daily Up to 4 hours	PPE: Disposable nitrile gloves or thick reusable butyl rubber gloves and goggles, as needed.	<b>ACCEPTABLE:</b> Based on the process description there should be no significant exposures.  Liquid chlorine, liquid fluoride and hydrochloric acid are very corrosive. Use caution when contacting liquids.

INDIVIDUAL HAZARD ASSESSMENT			DATE: 10 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5500 <b>SHOP:</b> I & E DIV PW-FM HVAC/Utilities <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Mr. Hundley <b>PHONE:</b> 639-6203 <b>TOTAL PERSONNEL:</b> 9 (Civ: 9) <b>MALE:</b> 9 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. This shop provides preventative maintenance on all HVAC and water for the base. One person is responsible for maintaining the digital directive control (DDC) computer system. This system controls all of the HVAC systems on base. Under the HVAC section there are four personnel that provide various maintenance calls throughout the base. Two personnel are responsible for the buildings located on base proper and two personnel are responsible for the buildings in the LOGCOM's Marine Depot Maintenance Command (MDMC). Under the Utilities section there are two personnel that are responsible for water maintenance on base proper and include the well houses, pool and boilers.				
OPERATIONS AND POTENTIAL HEALTH HAZARDS	NUMBER OF WKRS	FREQUENCY/ DURATION OF EXPOSURE	CONTROLS (1)	EXPOSURE ASSESSMENT (2)
Shop operations: Work-related musculoskeletal disorders (WMSD)-heavy lifting* and carbon monoxide*  Personnel may have to lift/move/carry heavy objects in the warehouse or on job site; therefore personnel can use either diesel or gas forklifts (no maintenance is performed).	9	Varies Dispersed throughout the day	ENG: Use of forklifts and hydraulic lifts.  ADM: Proper lifting procedures and forklift is used in an open area.	<b>WMSD RISK FACTORS:</b> No problems reported. There is the potential for ergonomic injuries to occur; training is recommended. Continue to provide regular awareness training on the proper movement and placement of heavy components and parts.  Any ergonomic-related injury should be reported to the command safety officer.  <b>Medical surveillance for Forklift Operator/Material Handling Equipment (710) is required.</b>  <i>*Heavy lifting and carbon monoxide are developmental reproductive hazards.</i>
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	All	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				



<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 10 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5500 <b>SHOP:</b> I & E DIV PW-FM HVAC/Utilities <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> Mr. Hundley <b>PHONE:</b> 639-6203 <b>TOTAL PERSONNEL:</b> 9 (Civ: 9) <b>MALE:</b> 9 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. This shop provides preventative maintenance on all HVAC and water for the base. One person is responsible for maintaining the digital directive control (DDC) computer system. This system controls all of the HVAC systems on base. Under the HVAC section there are four personnel that provide various maintenance calls throughout the base. Two personnel are responsible for the buildings located on base proper and two personnel are responsible for the buildings in the LOGCOM's Marine Depot Maintenance Command (MDMC). Under the Utilities section there are two personnel that are responsible for water maintenance on base proper and include the well houses, pool and boilers.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/ DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
2. EXPOSURE ASSESSMENT refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: <b>ACCEPTABLE</b> – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). <b>UNCERTAIN</b> – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. <b>UNACCEPTABLE</b> – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. <b>WMSD RISK FACTORS</b> – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. <b>SKIN</b> – The material poses a skin absorption hazard. <b>REPRO HAZARD</b> – The material is a Navy-recognized reproductive hazard. <b>CARCINOGEN</b> – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>		<b>DATE:</b> 18 May 2016		
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2600 <b>SHOP:</b> I & E DIV PW-FM IWTP <b>SHOP HAZARD PRIORITY RATING:</b> 2		<b>POC:</b> John Fondren <b>PHONE:</b> 639-7152 <b>TOTAL PERSONNEL:</b> 4 (Civ: 4) <b>MALE:</b> 4 <b>FEMALE:</b> 0		
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. This shop is responsible for treating all of the waste water discharged from the LOGCOM's Marine Depot Maintenance Command (MDMC). Workers in this area make hourly rounds to monitor waste tanks, collect samples and perform laboratory testing.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<b>Waste water treatment: Noise*</b>  Personnel perform hourly rounds to monitor waste tanks. This can include entering the pump room that is currently designated as a hazardous noise area. At the time of the survey noise was minimal; however, it was stated that the bearings can break and cause louder noises.  See attachment (4) for sound level measurement results.	4	7-8x/day 10 minutes each time	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96 dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  <i>*Noise is a recognized developmental reproductive hazard.</i>  <b>Personnel are currently enrolled in Medical surveillance for Noise (503). However, based on assessments and noise data it is unclear if this enrollment is necessary. Safety is researching this requirement.</b>
<b>Jar test: sodium hydroxide and ferrous chloride</b>  Samples are taken from the surge tank and the secondary clarifier.  pH is measured with a pH probe. Sulfuric acid is added as needed to adjust the pH to 3.0-4.0. Jar is placed under a stirrer and allowed to stir for about 5 minutes. While stirring approximately 8 drops of 50% sodium hydroxide and 1 mL of 3430 polymer is added. Solids are allowed to precipitate and examined for color. As long as the water is clear no further action is needed. However, if this does not occur, the test is repeated with the addition of ferrous chloride to the test in drop amounts and personnel adding in large amounts from the tanks to the filtration system.	4	7-8x/day 5 minutes each time	PPE: Safety glasses and nitrile gloves as needed.	<b>ACCEPTABLE:</b> No significant exposure expected based on the nature of exposure as described.

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 18 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2600 <b>SHOP:</b> I & E DIV PW-FM IWTP <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> John Fondren <b>PHONE:</b> 639-7152 <b>TOTAL PERSONNEL:</b> 4 (Civ: 4) <b>MALE:</b> 4 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. This shop is responsible for treating all of the waste water discharged from the LOGCOM's Marine Depot Maintenance Command (MDMC). Workers in this area make hourly rounds to monitor waste tanks, collect samples and perform laboratory testing.				
OPERATIONS AND POTENTIAL HEALTH HAZARDS	NUMBER OF WKRS	FREQUENCY/DURATION OF EXPOSURE	CONTROLS (1)	EXPOSURE ASSESSMENT (2)
<p>Waste water treatment: sulfuric acid, ferrous chloride, eye and foot hazards</p> <p>Waste water comes in and goes through a gravity separator, then through a splitter and into either surge tank 1 or 2. At both of these points the water is tested for pH and either sulfuric acid or ferrous chloride is added to increase or decrease the pH for a target range of 3-4. Water then goes to the neutralization tank where water can be treated with sodium hydroxide to maintain a pH of 11-11.5 and Chemrite 3430 is added to the water. Water then goes through a primary and secondary clarifier and then to the city plant as "clean water".</p> <p>Personnel can also add "special waste" to the stream. This is raw material that is not disposed of downstream; however, it is collected and delivered to the plant separated. The plant has designated amounts of this waste that can be added at any given time to the waste stream and still maintain the required pH.</p> <p>Personnel can also use Chemrite CR-493 Scale and deposit control (1-hydroxyethane-1,1-diphosphonic acid) to clean the side of the clarifier.</p>	4	7-8x/day 10 minutes each time	<p>PPE: Safety glasses and steel-toed shoes (when required).</p> <p>ENG: Closed loop system.</p>	<p><b>ACCEPTABLE:</b> No significant exposure expected based on the nature of exposure as described.</p>
<p>Treatment of the solid waste: Eye and foot hazards</p> <p>The solid left over from the treatment of the water is treated with Chemrite 4244 flocculant (amide) and then ran through a belt press to make solid waste cakes. 4244 is a powdery substance added to the system to assist with the removal of solids.</p>	4	7-8x/day 10 minutes each time	<p>PPE: Safety glasses and steel-toed shoes (when required).</p>	<p><b>ACCEPTABLE:</b> No significant exposure expected based on the nature of exposure as described.</p>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 18 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2600 <b>SHOP:</b> I & E DIV PW-FM IWTP <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> John Fondren <b>PHONE:</b> 639-7152 <b>TOTAL PERSONNEL:</b> 4 (Civ: 4) <b>MALE:</b> 4 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. This shop is responsible for treating all of the waste water discharged from the LOGCOM's Marine Depot Maintenance Command (MDMC). Workers in this area make hourly rounds to monitor waste tanks, collect samples and perform laboratory testing.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<p>Equipment maintenance: Zinc, tetrahydrofuran (THF) 109-99-9, methyl ethyl ketone and cyclohexanone</p> <p>Personnel uses CITGO Lithoplex® MP Grease No. 2 (Zinc) to grease bearings on the belt press and conveyor every 80 hours of use or as needed. Personnel can also add hydraulic oil (CITGO Clarion Food Grade A/W Hydraulic Oil 32) as needed.</p> <p>Personnel may also use IPS Weld on 724 CPVC cement (tetrahydrofuran (THF) 109-99-9, methyl ethyl ketone and cyclohexanone) as needed to fix pipes.</p>	4	As needed.	PPE: Safety glasses and nitrile gloves as needed.	<p><b>ACCEPTABLE:</b> No significant exposure expected based on the nature of exposure as described.</p>
<p>Shop operations: Heat stress* and UV radiation*</p> <p>Personnel walk the grounds to perform tank checks and take samples. Personnel can be exposed to the elements during this time.</p>	4	7-8x/day 10 minutes each time	<p>PPE: Sunscreen (&gt;30 SPF), UV protective sunglasses.</p> <p>ADM: Work/rest cycles based on the flag condition.</p>	<p><b>ACCEPTABLE:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition.</p> <p>Personnel should be provided PPE to protect against UV radiation including sunglasses. Personnel exposed to UV radiation may develop pinguecula or pterygium (growths on the eye's cornea). Personnel exposed to UV radiation are more likely to develop skin cancer. Personnel should be encouraged to hydrate while working outside. Personnel are encouraged to seek shelter in the air conditioned areas routinely throughout the day especially during the high heat season.</p> <p><i>*High heat is considered a reproductive hazard.</i>  <i>*UV radiation is a recognized carcinogen.</i></p>

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 18 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2600 <b>SHOP:</b> I & E DIV PW-FM IWTP <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> John Fondren <b>PHONE:</b> 639-7152 <b>TOTAL PERSONNEL:</b> 4 (Civ: 4) <b>MALE:</b> 4 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. This shop is responsible for treating all of the waste water discharged from the LOGCOM's Marine Depot Maintenance Command (MDMC). Workers in this area make hourly rounds to monitor waste tanks, collect samples and perform laboratory testing.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Shop operations: Work-related musculoskeletal disorders (WMSD)-heavy lifting*  Personnel may have to lift/move/carry heavy objects to include 50 pound bags of Chemrite.	4	Varies Dispersed throughout the day	ENG: Carts and dollies.  ADM: Proper lifting procedures.	<b>WMSD RISK FACTORS:</b> No problems reported. There is the potential for ergonomic injuries to occur; training is recommended. Continue to provide regular awareness training on the proper movement and placement of heavy components and parts.  Any ergonomic-related injury should be reported to the command safety officer.  <i>*Heavy lifting is a developmental reproductive hazard.</i>
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	4	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>			<b>DATE:</b> 18 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 2600 <b>SHOP:</b> I & E DIV PW-FM IWTP <b>SHOP HAZARD PRIORITY RATING:</b> 2			<b>POC:</b> John Fondren <b>PHONE:</b> 639-7152 <b>TOTAL PERSONNEL:</b> 4 (Civ: 4) <b>MALE:</b> 4 <b>FEMALE:</b> 0	
<b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section. This shop is responsible for treating all of the waste water discharged from the LOGCOM's Marine Depot Maintenance Command (MDMC). Workers in this area make hourly rounds to monitor waste tanks, collect samples and perform laboratory testing.				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<p>2. EXPOSURE ASSESSMENT refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes:</p> <p>ACCEPTABLE – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL).</p> <p>UNCERTAIN – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment.</p> <p>UNACCEPTABLE – One where the IH will expect the SEG, on average, to be exposed above the selected OEL.</p> <p>WMSD RISK FACTORS – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress.</p> <p>SKIN – The material poses a skin absorption hazard.</p> <p>REPRO HAZARD – The material is a Navy-recognized reproductive hazard.</p> <p>CARCINOGEN – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.</p>				

<b>INDIVIDUAL HAZARD ASSESSMENT</b>		<b>DATE:</b> 12 May 2016		
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5500 <b>SHOP:</b> I & E DIV PW-FM Maintenance <b>SHOP HAZARD PRIORITY RATING:</b> 2		<b>POC:</b> Maintenance Supervisor Mr. Hitt and section Leads (listed below) <b>PHONE:</b> 639-5628 <b>TOTAL PERSONNEL:</b> 8 (Civ: 8) <b>MALE:</b> 8 <b>FEMALE:</b> 0		
<p><b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section and includes Electrical, Plumbing, Locksmith, Signs and Roads &amp; Grounds. Personnel are responsible for responding to maintenance tickets for 10 buildings on base. Personnel are not responsible for buildings inside the LOGCOM's Marine Depot Maintenance Command (MDMC) area.</p> <p>There are three main areas of responsibility: Maintenance (Mr. Hitt and Mr. Alward and 2 Civ Males), Roads &amp; Grounds (Mr. Keller and 2 Civ males) and Locks &amp; Signs (Mr. Graves). The maintenance section includes a Maintenance tech and an electrician. Roads &amp; Grounds includes a laborer and a tractor operator.</p> <p>Personnel are no longer painting or applying pesticides. Most work is contracted out.</p>				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Various shop operations: Noise*  1. Preventative maintenance work: The maintenance mechanic performs various jobs as called for in maintenance tickets. This can include working in various industrial hazardous noise areas for long periods of time.  2. Road & grounds work: The laborer performs various jobs as called for in maintenance tickets. This can include the use of various material handling equipment.  3. Road & grounds tractor operations: This person performs various jobs as called for in maintenance tickets. This can include the use of various material handling equipment.  4. Making keys: Personnel are responsible for all locks and keys on base. This includes using a power key cutter.  See attachment (4) for sound level measurements and dosimetry results.	1. 1  2. 1  3. 1  4. 1	1. Daily Up to 8 hours  2. Daily Up to 8 hours  3. Daily Up to 8 hours  4. 10 keys/week	PPE: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 96 dBA. Double hearing protection requires the use of earplugs AND muffs.	<b>1-3. UNACCEPTABLE:</b> Based on sampling. Personnel may be exposed above the DoD standard of 85 dBA.  <b>Medical surveillance for Noise (503) is required.</b>  <b>4. ACCEPTABLE:</b> Personnel exposure to noise in excess of the standard is not expected based on the duration and frequency of the operation.  <i>*Noise is a recognized developmental reproductive hazard.</i>
Preventative maintenance work: Eye and foot hazards  The maintenance mechanic performs various jobs as called for in maintenance tickets. This can include changing light bulbs, minor plumbing work, etc. This person does not use chemicals on a regular basis.	1	Daily Up to 8 hours	PPE: Safety glasses and steel-toed shoes as needed.	<b>ACCEPTABLE:</b> No significant exposure expected based on the nature of exposure as described.

<b>INDIVIDUAL HAZARD ASSESSMENT</b>		<b>DATE:</b> 12 May 2016		
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5500 <b>SHOP:</b> I & E DIV PW-FM Maintenance <b>SHOP HAZARD PRIORITY RATING:</b> 2		<b>POC:</b> Maintenance Supervisor Mr. Hitt and section Leads (listed below) <b>PHONE:</b> 639-5628 <b>TOTAL PERSONNEL:</b> 8 (Civ: 8) <b>MALE:</b> 8 <b>FEMALE:</b> 0		
<p><b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section and includes Electrical, Plumbing, Locksmith, Signs and Roads &amp; Grounds. Personnel are responsible for responding to maintenance tickets for 10 buildings on base. Personnel are not responsible for buildings inside the LOGCOM's Marine Depot Maintenance Command (MDMC) area.</p> <p>There are three main areas of responsibility: Maintenance (Mr. Hitt and Mr. Alward and 2 Civ Males), Roads &amp; Grounds (Mr. Keller and 2 Civ males) and Locks &amp; Signs (Mr. Graves). The maintenance section includes a Maintenance tech and an electrician. Roads &amp; Grounds includes a laborer and a tractor operator.</p> <p>Personnel are no longer painting or applying pesticides. Most work is contracted out.</p>				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
<b>Electrical Work; Eye and foot hazards</b>  The electrician performs various jobs as called for in maintenance tickets. This can include minor electrical work to include installing/moving outlets	1	Daily Up to 8 hours	<b>PPE:</b> Safety glasses and steel-toed shoes as needed.	<b>ACCEPTABLE:</b> No significant exposure expected based on the nature of exposure as described.
<b>Road &amp; grounds tractor operations: Carbon monoxide*, UV radiation* and heat stress*</b>  The tractor operator performs various jobs as called for in maintenance tickets. This can include using a back hoe, grade all material handler, etc. and working outdoors for extended periods of time. Most equipment has an enclosed air-conditioned cab.	1	Enclosed cab with A/C-30 hours week  No cab or A/C-10 hours week	<b>ADM:</b> Performed outdoors (natural ventilation)  <b>PPE:</b> Sunscreen (>30 SPF), UV protective sunglasses.  <b>ADM:</b> Work/rest cycles based on the flag condition.	<b>ACCEPTABLE for carbon monoxide and UV radiation:</b> No significant exposure expected based on the nature of exposure as described to carbon monoxide.  <b>ACCEPTABLE for heat stress:</b> Based on exposure to heat with proper adherence to established Navy protocols. Water and work/rest breaks should be adhered to based on the flag condition.  Personnel should be provided PPE to protect against UV radiation including sunglasses. Personnel exposed to UV radiation may develop pinguecula or pterygium (growths on the eye's cornea). Personnel exposed to UV radiation are more likely to develop skin cancer. Personnel should be encouraged to hydrate while working outside. Personnel are encouraged to seek shelter in the air conditioned areas routinely throughout the day especially during the high heat season.  <b>Medical surveillance for Forklift Operator/Material Handling Equipment (710) is required.</b>  <i>*High heat and carbon monoxide are developmental reproductive hazards.          * UV radiation is a recognized carcinogen.</i>



<b>INDIVIDUAL HAZARD ASSESSMENT</b>		<b>DATE:</b> 12 May 2016		
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5500 <b>SHOP:</b> I & E DIV PW-FM Maintenance <b>SHOP HAZARD PRIORITY RATING:</b> 2		<b>POC:</b> Maintenance Supervisor Mr. Hitt and section Leads (listed below) <b>PHONE:</b> 639-5628 <b>TOTAL PERSONNEL:</b> 8 (Civ: 8) <b>MALE:</b> 8 <b>FEMALE:</b> 0		
<p><b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section and includes Electrical, Plumbing, Locksmith, Signs and Roads &amp; Grounds. Personnel are responsible for responding to maintenance tickets for 10 buildings on base. Personnel are not responsible for buildings inside the LOGCOM's Marine Depot Maintenance Command (MDMC) area.</p> <p>There are three main areas of responsibility: Maintenance (Mr. Hitt and Mr. Alward and 2 Civ Males), Roads &amp; Grounds (Mr. Keller and 2 Civ males) and Locks &amp; Signs (Mr. Graves). The maintenance section includes a Maintenance tech and an electrician. Roads &amp; Grounds includes a laborer and a tractor operator.</p> <p>Personnel are no longer painting or applying pesticides. Most work is contracted out.</p>				
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>	<b>EXPOSURE ASSESSMENT (2)</b>
Road & grounds work: Petroleum distillates*  The laborer performs various jobs as called for in maintenance tickets. This can include: Weed eating, using a blower and assisting other shops. This can also include the use of PB blaster (petroleum distillates* 64742-65-0) and spray paint (Aervoe Survey Marking Paint – Aerosol VM & P Naphtha 8032-32-4) to mark underground pipe and electrical lines.	1	2-3x/month 1-5 minutes	PPE: Safety glasses and steel-toed shoes as needed.	<b>ACCEPTABLE:</b> No significant exposure expected based on the nature of exposure as described.  <i>*Petroleum distillates are a known carcinogen.</i>
Making signs: Class 2 laser  Personnel create several different types of signs and labels using a Gravoprah LS 900 (enclosed Class 2 laser) and plotter. Personnel are also responsible for installing/hanging signs and labels.	1	As needed	ENG: Enclosed system.	<b>ACCEPTABLE:</b> No significant exposure expected based on the nature of exposure as described.
Making keys: Work-related musculoskeletal disorders (WMSD)-forceful exertion  Personnel are responsible for all locks and keys on base. This includes using a power key cutter and a manual key cutter.	1	Avg: 5 keys/day Worst case: 25 keys/day  7 punches/key	ADM: Work/rest cycles.	<b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.

<b>INDIVIDUAL HAZARD ASSESSMENT</b>		<b>DATE:</b> 12 May 2016	
<b>RECORDED BY:</b> Whitney Bishop <b>COMMAND:</b> Marine Corps Logistics Base Installation and Environment Division <b>BLDG:</b> 5500 <b>SHOP:</b> I & E DIV PW-FM Maintenance <b>SHOP HAZARD PRIORITY RATING:</b> 2		<b>POC:</b> Maintenance Supervisor Mr. Hitt and section Leads (listed below) <b>PHONE:</b> 639-5628 <b>TOTAL PERSONNEL:</b> 8 (Civ: 8) <b>MALE:</b> 8 <b>FEMALE:</b> 0	
<p><b>SHOP OPERATIONS:</b> This shop is part of the Public Works Facility Maintenance Section and includes Electrical, Plumbing, Locksmith, Signs and Roads &amp; Grounds. Personnel are responsible for responding to maintenance tickets for 10 buildings on base. Personnel are not responsible for buildings inside the LOGCOM's Marine Depot Maintenance Command (MDMC) area.</p> <p>There are three main areas of responsibility: Maintenance (Mr. Hitt and Mr. Alward and 2 Civ Males), Roads &amp; Grounds (Mr. Keller and 2 Civ males) and Locks &amp; Signs (Mr. Graves). The maintenance section includes a Maintenance tech and an electrician. Roads &amp; Grounds includes a laborer and a tractor operator.</p> <p>Personnel are no longer painting or applying pesticides. Most work is contracted out.</p>			
<b>OPERATIONS AND POTENTIAL HEALTH HAZARDS</b>	<b>NUMBER OF WKRS</b>	<b>FREQUENCY/DURATION OF EXPOSURE</b>	<b>CONTROLS (1)</b>
Professional/administrative tasks: Work-related musculoskeletal disorders (WMSD)-static postures  Personnel work inside at an office setting to include the use of a computer. Personnel may sit for long periods of time at the desk.	3	Daily Up to 8 hours	ADM: Stretch breaks to avoid long periods in the same posture.  <b>WMSD RISK FACTORS:</b> No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough.  Personnel should ensure that workstations are set up correctly (example included in attachment (8)) to help prevent WMSD issues from occurring.  Public Safety Division's ergonomic lead, Ms. Donna Chalmers, 229-639-6215, can address specific concerns with a full office evaluation and/or provide a more definitive guide, "Creating the Ideal Computer Workstation: A Step-by-Step Guide", for conducting a self-assessment.  Any ergonomic-related injury should be reported to the command safety officer.
<b>1. USE THE FOLLOWING CONTROL CODES:</b> ADM – Administrative Controls      PPE – Personal Protective Equipment      ISO – Isolation DV – Dilution Ventilation      ENG – Engineering Controls      LV – Local Ventilation			
<b>2. EXPOSURE ASSESSMENT</b> refers to "Potential" exposure and does not take PPE such as respiratory protection or hearing protection into account. Use the following exposure codes: <b>ACCEPTABLE</b> – One where the IH will not expect the similar exposure group (SEG), on average, to be above the selected occupational exposure limit (OEL). <b>UNCERTAIN</b> – Additional data needs to be collected to clarify the exposure assessment. The IH should make an interim exposure assessment based on observation of the process and/or professional judgment. <b>UNACCEPTABLE</b> – One where the IH will expect the SEG, on average, to be exposed above the selected OEL. <b>WMSD RISK FACTORS</b> – Work-related musculoskeletal disorder (WMSD) risks include but are not limited to force, repetition, awkward or static postures, vibration and contact stress. <b>SKIN</b> – The material poses a skin absorption hazard. <b>REPRO HAZARD</b> – The material is a Navy-recognized reproductive hazard. <b>CARCINOGEN</b> – The material contains greater than 0.1% of an OSHA, ACGIH, IARC, OR NTP-recognized carcinogen.			

**SUMMARY OF MEDICAL SURVEILLANCE RECOMMENDATIONS**  
**INSTALLATION AND ENVIRONMENTAL DIVISION**  
**MARINE CORPS LOGISTICS BASE ALBANY, GA**  
**REPORT NUMBER: AL16010**  
**MAY 2016**

Ref: (a) Medical Surveillance Procedures Manual and Medical Matrix, Edition 12, NMCPHC-TM OM 6260  
(<http://www.med.navy.mil/sites/nmcphc/occupational-and-environmental-medicine/oemd/Pages/medical-surveillance-certification.aspx>).

The following table summarizes identified medical surveillance recommendations.

<b>WORKCENTER</b>	<b>WORK PROCESSES</b>	<b>MEDICAL SURVEILLANCE</b>	<b>ESTIMATED # OF PERSONS</b>
Environmental Branch-Compliance	Hazardous waste disposal	Forklift operator/material handling equipment (710)	3
	Cleaning bullet trap and Emergency Response	Respirator Users Certification Exam (716)	1
	Emergency Response		4
Environmental Branch-Natural Resources	Weapons Qualifications-Game warden	Noise (503)	1
	Various shop operations	Forklift operator/material handling equipment (710)	2
Environmental Branch-Pollution Prevention	Recycling operations	Forklift operator/material handling equipment (710)	3
	Cleaning bullet trap and Emergency Response	Respirator Users Certification Exam (716)	1
	Emergency Response		2
Housing Branch-Transient Housing	Housekeeping and Laundry	Blood Borne Pathogen Program (178)	7 (only 7 performing the tasks however 10 are enrolled)
Public Works Branch (Operations)	Weapons Qualifications-Marine on staff	Noise (503)	1
	PM Warranty Asset inspections		1
PW-FM Boiler	Boiler checks	Noise (503)	5
PW-FM CRS	Various Maintenance operations in the MDMC area	Noise (503)	14
	Maintenance-Blast cabinets	Respirator Users Certification Exam (716)	4
	Various shop operations	Forklift operator/material handling equipment (710)	11
PW-FM HVAC/Water	HVAC and Utilities work	Noise (503)	8
	Various shop operations	Forklift operator/material handling equipment (710)	9
PW-FM IWTP	Facility Maintenance	Noise (503)	4

PW-FM Maintenance	Facility Maintenance	Noise (503)	1
	Roads and grounds work (this includes the laborer and tractor operator)	Noise (503)	2
	Roads and grounds tractor operations	Forklift operator/material handling equipment (710)	1

**1. Explanation of Medical Surveillance/Certification Recommendations:** Recommendation for inclusion in a hazard-based medical surveillance program for employees involved in a given operation is based on the industrial hygienist's judgment, either through observation or knowledge of the process or representative sampling, that these employees will be routinely exposed to workplace concentrations at or above 50% of applicable OSHA standards or action levels established by Navy instruction or Federal regulation. Medical certification is required by specific Navy or Federal directive where a certain degree of physical fitness has been judged as necessary for a component of the job (i.e. respirator use) or the job itself (i.e. forklift operators or security guards). Governing references regarding certifications should be followed. Scheduling of these personnel for examination is to be accomplished through the Occupational Medicine.

**2. New Medical Surveillance Requirements:** The Supervisor's Medical Surveillance and Certification Exam Referral form (SECNAV 5100.1T) is required to be filled out prior to personnel visiting Occupational Medicine for medical surveillance exams  
([https://navalforms.documentservices.dla.mil/formsDir/\\_SECNAV\\_5100\\_1T\\_10914.pdf](https://navalforms.documentservices.dla.mil/formsDir/_SECNAV_5100_1T_10914.pdf)).

**NOISE SURVEY WITH HEARING PROTECTION REQUIREMENTS  
AND PERSONAL NOISE SAMPLING RESULTS SUMMARY  
INSTALLATION AND ENVIRONMENTAL DIVISION  
MARINE CORPS LOGISTICS BASE ALBANY, GA  
REPORT NUMBER: AL16010  
MAY 2016**

1. BUMED NOTICE 6260, 9 May 2016, directs the Navy to follow the Department of Defense Hearing Conservation Program guidance provided in DoD Instruction 6055.12, 3 December 2010. This changed the noise levels for which single and double hearing protection are required, the calculated protection factor or noise reduction rating (NRR) for devices used, and the way in which personal exposure dosimetry data is calculated. Areas requiring hearing protection should be appropriately labeled according to DoD requirements. Personnel should also be trained to subjectively identify "noise hazardous" conditions that may be encountered throughout the command/shop. In general, if personnel must raise their voice or shout to be heard over a noise source by a colleague standing two feet or less away, they are in a noise hazardous condition. Personnel should know to wear single hearing protection whenever such conditions are encountered.

2. The following table identifies spaces, work tasks and equipment that require the use of hearing protection. These measurements were taken at Installation and Environmental Division during the current or previous industrial hygiene (IH) survey. All personnel working in the area or performing the identified tasks that are exposed to sound pressure levels of **85 dB(A)** and greater must use single hearing protection. Personnel exposed to sound pressure levels of **96 dB(A)** and greater require the use of double hearing protection, as indicated by the word "Double" in the "Level of Hearing Protection Required" column. The hearing protective devices used must meet the requirements of standard to reduce the noise attenuation below 85 dBA.

<b>IDENTIFIED NOISE HAZARD AREA, OPERATIONS AND EQUIPMENT</b>					
<b>RESPONSIBLE WORKCENTER</b>	<b>SPACE</b>	<b>WORK TASK AND/OR CONDITIONS</b>	<b>RANGE OF MEASURED SOUND PRESSURE LEVELS (dBA)</b>	<b>NOISE RADIUS (FT)</b>	<b>HEARING PROTECTION REQUIRED</b>
Environmental Branch-Pollution Prevention	Recycling Center	Recycling: Use of cardboard bailer	67-72 Peaks 84	N/A	None
	Recycling Center	Recycling: Use of aluminum can crusher	80-99.8	5ft	Double
Environmental Branch-Compliance	Recycling Center	Hazardous waste disposal: Use of aerosol paint can crusher	75 at crusher	N/A	None
	Recycling Center	Hazardous waste disposal: Use of oil filter crusher	70-83 Peaks at end 91	5ft	Single
PW-FM Boiler	Bldg 2210	Air compressors	86.7-92	Not determined	Single
	Bldg 2210	Boiler tanks	84.8-87	Not determined	Single

<b>IDENTIFIED NOISE HAZARD AREA, OPERATIONS AND EQUIPMENT</b>					
<b>RESPONSIBLE WORKCENTER</b>	<b>SPACE</b>	<b>WORK TASK AND/OR CONDITIONS</b>	<b>RANGE OF MEASURED SOUND PRESSURE LEVELS (dBA)</b>	<b>NOISE RADIUS (FT)</b>	<b>HEARING PROTECTION REQUIRED</b>
PW-FM Boiler (cont.)	Bldg 2210	Boiler Room Office	71-73	N/A	None
	Steam Generator Rm Bldg 2299	Steam generator	80	N/A	None
	Steam Generator Rm Bldg 2299	Boiler tanks	82	N/A	None
	Steam Generator Rm Bldg 2299	Exhaust fans	75	N/A	None
	Methane Generator Rm Bldg 2299	Methane generators	104-114	Not determined	Double
	Methane Generator Rm Bldg 2299	Exhaust fans	75	N/A	None
	Generator Rm Bldg 2299	Middle of room	64	N/A	None
	Electric Rm Bldg 2299	Middle of room	70	N/A	None
	Outside Bldg 2299	Heat Exchanger-outdoors	89	Not determined	Single
PW-FM IWTP	Pump House	Pump 1 and 2 at motor	90	Standing position	Double
		Pump 1 and 2 at standing position	83	N/A	None
		Pump 3 at motor	84	N/A	None
		Pump 3 at standing position	75	N/A	None
		Panel on first floor inside pump room	72	N/A	None
PW-FM HVAC/Utilities	Well house 3 Bldg 1466	Right next to the pumps	85-87	The building	Single
		At door ways	83-84	N/A	None
PW-FM-Maintenance	Outside	Roads and Grounds operations: Use of jackhammer crane (ground crew: 3-5 ft away from crane)	86-93	Not determined	Single
	Outside	Roads and Grounds operations: Idle jackhammer crane (ground crew)	70-82	N/A	None
	Outside	STIHL BR 600 Magnum backpack blower	85-103	Not determined	Double

3. The personal sample results listed below indicated some shops have exposures that exceeded the DoD occupational exposure limit (OEL).

I & E DIV ENVIRONMENTAL BRANCH-POLLUTION PREVENTION PERSONNEL NOISE SAMPLING RESULTS				
DATE SAMPLE #	ACTIVITY	EXPOSURE LIMIT	MEASURED TWA EXPOSURE	RESULT
23Sept 15 ND15079	Recycling tasks (use of baler and crusher)	85	85	At DoD OEL
23Sept 15 ND15078	Recycling tasks (use of forklift)	85	79	Below DoD OEL
21Sept 15 ND15070	Administrative work and inspections	85	58	Below DoD OEL
21Sept 15 ND15069	Recycling tasks (collection, use of baler, crusher and pick-up truck)	85	83	Below DoD OEL

I & E DIV PW-FM BOILER PERSONNEL NOISE SAMPLING RESULTS				
DATE SAMPLE #	ACTIVITY	EXPOSURE LIMIT	MEASURED TWA EXPOSURE	RESULT
12 May 16 ND16116	Boiler room operations to include hourly walkthroughs of the plant.	85	84	Below DoD OEL

PW-FM CRS PERSONNEL NOISE SAMPLING RESULTS				
DATE SAMPLE #	ACTIVITY	EXPOSURE LIMIT	MEASURED TWA EXPOSURE	RESULT
No current samples				

PW-FM HVAC/UTILITIES PERSONNEL NOISE SAMPLING RESULTS				
DATE SAMPLE #	ACTIVITY	EXPOSURE LIMIT	MEASURED TWA EXPOSURE	RESULT
6 April 2016 ND15103	Utilities maintenance to include working on a new vacuum machine in bay of building 5501	85	81	Below DoD OEL
6 April 2016 ND15102	Utilities maintenance to include performing well and boiler checks	85	77	Below DoD OEL
6 April 2016 ND15101	HVAC maintenance to include PMs on AC units inside MDMC area.	85	90	Above DoD OEL
6 April 2016 ND15100	HVAC maintenance to include PMs on AC units inside MDMC area.	85	84	Below DoD OEL
3 Dec 14 ND15010	Utilities maintenance to include performing boiler room checks.	85	75	Below DoD OEL
3 Dec 14 ND15011	Utilities maintenance to include performing boiler room checks.	85	78	Below DoD OEL
16 Oct 14 ND15001	HVAC maintenance to include PMs on AC units in buildings on MCLB. (at the time of the survey personnel worked at CRS)	85	81	Below DoD OEL

PW-FM HVAC/UTILITIES PERSONNEL NOISE SAMPLING RESULTS				
DATE SAMPLE #	ACTIVITY	EXPOSURE LIMIT	MEASURED TWA EXPOSURE	RESULT
16 Oct 14 ND15002	HVAC maintenance to include PMs on AC units in buildings on MCLB (at the time of the survey personnel worked at CRS)	85	80	Below DoD OEL

PW-FM MAINTENANCE PERSONNEL NOISE SAMPLING RESULTS				
DATE SAMPLE #	ACTIVITY	EXPOSURE LIMIT	MEASURED TWA EXPOSURE	RESULT
12 May 16 ND16110	Road & grounds tractor operations- Personnel used a jackhammer crane to crush concrete for several hours. The crane has an enclosed cab.	85	86	Above DoD OEL
12 May 16 ND16111	Road & grounds worker- Personnel operated the backpack blower in the morning then acted as a safety/watcher on ground for the tractor operator.	85	90	Above DoD OEL
21 Oct 14 ND15003	Road & grounds tractor operations- ground maintenance and upkeep operations via tractor	85	85	At DoD OEL
21 Oct 14 ND15004	Road & grounds tractor operations- ground maintenance and upkeep operations via tractor	85	85	At DoD OEL

3. At the discretion of Industrial Hygiene, additional noise measurements (sound level surveys) may be obtained in work centers or noise dosimetry (personal monitoring on individuals) performed to resolve compliance issues such as the posting of hazardous noise areas, the adequacy of hearing protection devices already in use, or implementing administrative controls to bring the effective exposure to less than the DoD OEL.

4. The hearing protection devices currently in use (listed below) are capable of attenuating worker noise exposure below the OEL unless otherwise stated. It is recommended that the shop re-emphasize the need for wearing appropriate hearing protection continually when in designated noise hazard areas and it should be ensured that hearing protection use is strictly enforced throughout the shop. The shop should also consider any means available to minimize or eliminate noise wherever possible in order to reduce potential worker exposures. All noise hazardous areas/equipment should remain labeled with appropriate noise hazard stickers/signs. Should tasks change such that worker noise exposures are affected, notify Industrial Hygiene so that another assessment can be conducted.

Hearing protection in use:

**Environmental Branch:** EAR soft yellow neon blast earplugs (NRR 33 dB), Moldex rockets earplugs (NRR 27 dB) or what is provided at the maintenance depot (cannot be assessed).



**Recycling Center:** EAR Classic corded earplugs (NRR 29dB) and Tasco Sound Star Earmuff (NRR 24 dB) is only capable of attenuating noise levels less than 93 dB to below the OEL.

**Public Works Branch:** what is provided at the maintenance depot (cannot be assessed)

**PW-NAVFAC-FEAD:** Howard Leight Laser Lite earplugs (NRR 32 dB) and 3M EAR Express Pod corded earplugs (NRR 25 dB) is only capable of attenuating noise levels under 94 dB to below the OEL.

**PW-FM Boiler:** Howard Leight Impact earmuffs (NRR 23 dB) is only capable of attenuating noise levels under 93 dB to below the OEL.

**PW-FM CRS:** Howard Leight Laser Lite earplugs (NRR 32 dB) and Tasco Sound Shield muffs (29 dB)

**PW-FM HVAC/Water:** 3M EAR Express Pod corded earplugs (NRR 25 dB) is only capable of attenuating noise levels below 94 dB to below the OEL.

**PW-FM IWTP:** 3M EAR Express Pod corded earplugs (NRR 25 dB) is only capable of attenuating noise levels below 94 dB to below the OEL.

**PW-FM Maintenance:** 3M EAR Express Pod corded earplugs (NRR 25 dB) is only capable of attenuating noise levels below 94 dB to below the OEL.

**Supply had the following to issue out:** Howard Leight Laser Lite earplugs (32 dB)

5. The original sample results discussed in this attachment are on file with the Industrial Hygiene office. The workers have been notified of their sample results and the results have been recorded in their individual medical records. At this time there are no additional recommendations to be made.



**PERSONAL AIR SAMPLING RESULTS SUMMARY**  
**INSTALLATION AND ENVIRONMENTAL DIVISION**  
**MARINE CORPS LOGISTICS BASE ALBANY, GA**  
**REPORT NUMBER: AL16010**  
**MAY 2016**

<b>PERSONAL AIR SAMPLING RESULTS</b>					
<b>DATE SAMPLE #</b>	<b>ACTIVITY</b>	<b>STRESSOR</b>	<b>EXPOSURE LIMIT</b>	<b>MEASURED TWA EXPOSURE</b>	<b>RESULTS</b>
6 Oct 14 AS15006	Personnel changing AC filters	Dust	10 mg/m3	0.074 mg/m3	Below the TLV
6 Oct 14 AS15005	Personnel changing AC filters	Dust	10 mg/m3	0.302 mg/m3	Below the TLV
3 Oct 14 AS15003	Personnel changing AC filters	Dust	10 mg/m3	0.074 mg/m3	Below the TLV
1 Oct 14 AS15001	Personnel changing AC filters	Dust	10 mg/m3	0.073 mg/m3	Below the TLV

1. The personal sample results noted above indicated artisans had exposures below the ACGIH TLV during the process of changing out AC filters. Based on the operations, engineering controls and PPE worn, the artisans are adequately protected.
2. Should tasks change such that worker exposures are affected, notify the Industrial Hygiene Department so that additional sampling can be conducted.
3. The original sample results discussed in this attachment are on file in the Industrial Hygiene Department office. The workers have been notified of their sample results and the results have been recorded in their individual medical records. At this time there are no additional recommendations to be made.



**RESPIRATORY PROTECTION SUMMARY**  
**INSTALLATION AND ENVIRONMENTAL DIVISION**  
**MARINE CORPS LOGISTICS BASE ALBANY, GA**  
**REPORT NUMBER: AL16010**  
**MAY 2016**

1. The following is a listing of work tasks where respiratory protection is recommended. The recommendations are based on the results of air sampling data, regulatory requirements and the judgment of the industrial hygienist. It is the responsibility of the command's Respiratory Protection Program manager (RPPM) to implement the program requirements. Among the requirements of this program are annual training and annual fit testing. The examining physician determines the frequency of medical evaluations based on the employee's age and other factors. Military personnel who have a current PHA and are considered 'fit for full duty' are considered medically qualified to wear a respirator. It is likely that in some cases where respiratory protection was not specifically recommended, personnel may request voluntary respiratory protection for their own individual reasons. In instances of discretionary or voluntary respirator use, the respirator must be issued and controlled by the RPPM. Voluntary respiratory use must also meet the requirement of OPNAVINST 5100.23G, 1503g. (1-3).

WORKCENTER	WORK TASK	RESPIRATOR TYPE
Environmental Branch	Cleaning bullet trap: Personnel clean the 100 meter range bullet trap where lead dust is a hazard of concern until it is wetted down with water.	Full face respirator with a P100 filter discarded after each use. The filter can be reused within the same week as long as it is stored properly (i.e. in a separate bag from the respirator)
	Emergency Response: Personnel can respond to environmental spills/disasters. This can include anything from storage tank spills to leaking fuel when a vehicle is moved.	Full face respirator with a P100/OV combo cartridge discarded after each use or SCBA option (maintained by fire department).
Housing Branch-Transient Housing	Housekeeping: dusting.	N-95 filtering facepiece (Voluntary use).
PW-FM CRS	Maintenance-Blast cabinets: Personnel perform preventative and corrective maintenance on MDMC blast cabinets. This can include changing gloves and cleaning media disposal bins.	Full face respirator with a P100 filter discarded after each use. The filter can be reused within the same week as long as it is stored properly (i.e. in a separate bag from the respirator)

2. The 2015 respiratory protection program review for Marine Corps Logistics Base Albany was provided to the command under separate cover via ltr 6260 Ser 15-086 of 12 December 2015. That review provided specific program findings and recommendations.



**UPDATED EXPOSURE MONITORING PLAN**  
**INSTALLATION AND ENVIRONMENTAL DIVISION**  
**MARINE CORPS LOGISTICS BASE ALBANY, GA**  
**REPORT NUMBER: AL16010**  
**MAY 2016**

COMMAND: Installation and Environmental Division UIC: I & E: N45201, NAVFAC: N40085		P.O.C: TC Mullen PHONE: 639-8411		SURVEY PERIOD: 2016 BY IHO: Whitney Bishop ASSIGNED TO IHT: TBD	
EXPOSURE MONITORING PLAN					
OPERATION AND STRESSOR TO BE MONITORED	NUMBER OF SAMPLES	I METHOD	II AREA	III FREQ	IV MAN-HOURS
1. Air samples Environmental Branch POC: Mr. Metts-639-8934 Rationale: A Priority: 1	1	F	BZ	4	36
Action. Obtain air samples during the cleaning small arms shooting range process. Collect lead samples via an ICP metal scan.					
2. Sound Level Measurements Environmental Branch-Natural Resources POC: Ms. Robbins - 639-9946 Rationale: D Priority: 3	15	DR	HZ	One Time	7.5
Action. Obtain sound level measurements of the various tools to include chain saws, power tools, tractors and ATVs in use by personnel.					
3. Sound Level Measurements Housing Branch-Transient Housing POC: Mr. Kennedy-639-5927/5614 Rationale: D Priority: 3	10	DR	HZ	One Time	5
Action. Obtain sound level measurements of the power blower used by housekeeping and a couple of measurements in the laundry room when the washer and driers are in use to verify noise levels.					
4. Noise Dosimetry Public Works Branch-Operations POC: Mr. Barker-639-6178 Rationale: D Priority: 2	1	PD	HZ	2	18
Action. Obtain noise dosimetry on Mr. Shiver (PM Warranty Asset Inspector) when performing inspection in the MDMC.					
5. Noise Dosimetry PW-NAVFAC-FEAD POC: LT Centenseorado-639-5959 Rationale: D Priority: 2	2	PD	HZ	1	9
Action. Obtain noise dosimetry on the 2 engineering technicians on a two non-consecutive days that they are out in the field for the majority of the day.					
6. Air samples PW-FM CRS POC: Charles Merritt and Ricky Stallings-639-5628 Rationale: A Priority: 1	1	F	BZ	4	36
Action. Obtain air samples during the welding process. This can include SMAW or MIG welding. Collect a Hexavalent Chromium sample and an ICP metal scan. Try to get a welding task that is for a long period of time and is on stainless steel. Make sure to get copies of the SDS for the rods used.					

COMMAND: Installation and Environmental Division UIC: I & E: N45201, NAVFAC: N40085		P.O.C: TC Mullen PHONE: 639-8411		SURVEY PERIOD: 2016 BY IHO: Whitney Bishop ASSIGNED TO IHT: TBD	
<b>EXPOSURE MONITORING PLAN</b>					
<b>OPERATION AND STRESSOR TO BE MONITORED</b>		<b>NUMBER OF SAMPLES</b>	<b>I METHOD</b>	<b>II AREA</b>	<b>III FREQ</b>
7. Air samples PW-FM CRS POC: Charles Merritt and Ricky Stallings-639-5628 <b>Rationale: A</b> <b>Priority: 1</b>		1	F	BZ	2
Action. Obtain air samples during the maintenance on blast cabinets' process. Collect a Hexavalent Chromium sample and an ICP metal scan.					
Monitoring Plan Completion Reviewed By:				TOTAL HOURS:	129.5
<b>I Method of Measurement</b>	<b>II Area</b>	<b>III Frequency</b>	<b>IV Man-hours (Type/Number of Units/Hours)</b>		
DR--DIRECT READING INSTRUMENT	BZ - BREATHING ZONE	1 - 1X/YEAR	AIR: Full Shift for each area: Up to 3 9		
IT ---INDICATOR TUBE	HZ - HEARING ZONE	2 - 2X/YEAR	STEL: Up to 3 samples 1.5		
F --- FILTER	GA - GENERAL AREA	3 - 3X/YEAR	HEAT STRESS: Full Shift 8		
PD --PERSONAL DOSIMETER	SZ - SOURCE ZONE	4 - 4X/YEAR	NOISE DOSIMETRY: Full Shift: Up to 5 9		
AT --ADSORPTION TUBE (CHARCOAL, SILICA GEL, ETC.)	O - OTHER (SPECIFY)	5 - 1X/2 YEARS	NOISE SLM: All Sources: Up to 5 2.5		
W ----WIPE SAMPLE		6 - 1 X/4 YEARS	VENTILATION: All Hoods, Tanks, or Exhausts: Up to 5 3.5		
B -----BULK		7 - 12X/YEAR	VENTILATION: Air Changes: Up to 3 2.5		
			VENTILATION: Each Walk-In Booth 2.5		
			VENTILATION: Operating Rooms: Each 18		
			survey: 6 rooms (10 air supply/ 9 exhaust units)		

**Sample Rationale:**

- A: Fulfill regulatory sampling requirements.
- B: Collect sufficient data to allow statistically valid exposure assessments.
- C: Track workplace exposures to determine trends.
- D: Validate professional judgments of unchanged exposure assessments.

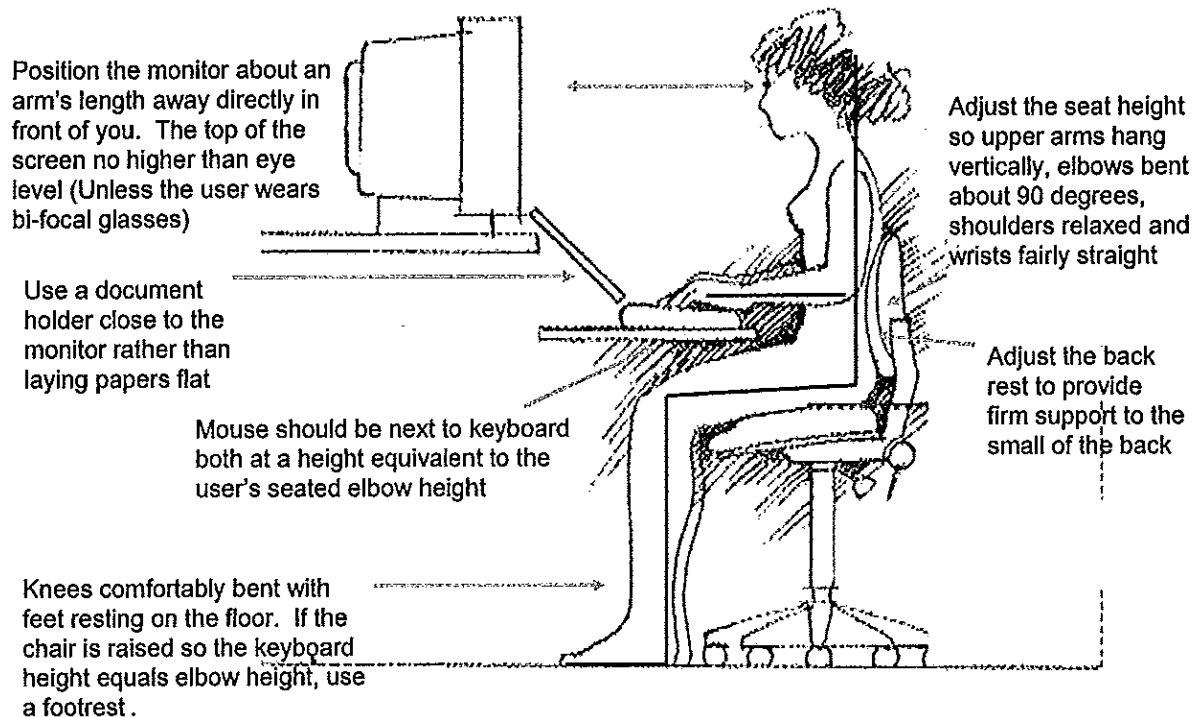
**Priority Category:**

- Priority 1:** Needed to fulfill regulatory/instructional requirements (Federal, Navy, BUMED, etc).
- Priority 2:** Noise dosimetry and non-regulatory personal breathing zone sampling.
- Priority 3:** Other sampling needed in order to provide a more accurate or statistically valid exposure assessment.
- Priority 4:** Needed to validate professional judgments and/or to refresh existing data

Regardless of the Priority assigned, exposure monitoring is an essential part of the Industrial Hygiene Program for the command. Command and employee support for the sampling process is important. It is requested that every effort be given to cooperating with the personnel assigned to perform the exposure monitoring. Cooperation by both workers and supervisory personnel will expedite the sampling and minimize undue interference with work center operations.



# Neutral Posture for Computer Use



# TIME TO TAKE A COMPUTER BREAK

For every 20 minutes of computer use,  
look at an object 20 feet away for  
20 seconds. This reduces eyestrain.

Move your eyes side-to-side and  
top to bottom. This helps moisten  
your eyes and reduces eye strain.

Cup your eyes with your hands  
and close your eyes. Do not  
apply any direct pressure on your  
eyes. This relaxes your face and  
moistens your eyes.

Rotate your ankles. This promotes  
blood circulation in your legs.

While seated, elongate your back  
by pretending there is a string  
attached to your head that is slowly  
pulling upwards. This will promote  
good posture and relieve some  
low back pain.

Slowly pull your arms back as far as  
you can, until you touch your shoulder  
blades together. This will reduce  
upper back stress.

Close your eyes and gradually  
move your head. This relaxes  
your neck muscles.

Extend your arms and fingers  
and relax for 10 seconds. This reduces stress  
in your upper extremities.

With your arms at your sides,  
shake your fingers. This  
relaxes your arms, hands  
and fingers.

Shrug your shoulders. This eliminates  
stiffness in shoulders and upper back.

**Tip:** Taking 20 second micro-breaks throughout the day to refocus your eyes will reduce fatigue at the end of the day. 20/20 rule: for every 20 minutes of work, rest the eyes 20 seconds.

## CUSTOMER SATISFACTION SURVEY

Industrial Hygiene Department  
Naval Branch Health Clinic, Albany

Command: \_\_\_\_\_ Date: \_\_\_\_\_

Please rate this survey and report by indicating the numbers below that reflect your level of satisfaction:

	Level of Satisfaction				
	Low				High
	1	2	3	4	5
1. Coordination and/or response to request					
2. Courtesy and professionalism of IH personnel					
3. IH personnel's ability to communicate clearly and openly					
4. Clarity of Report					
5. Usefulness of Report					
6. Exposure Monitoring (if applicable)					
7. Timeliness of Report					

7. How can we improve the services we are providing?

8. What other services would you like Industrial Hygiene Services to provide?

9. Additional Comments (add a separate sheet if necessary):

Name: \_\_\_\_\_ Position: \_\_\_\_\_ Shop/Codes: \_\_\_\_\_

PLEASE RETURN THIS SURVEY TO:

Head, Industrial Hygiene Department  
Naval Hospital Jacksonville  
Tamara.r.walker2.civ@mail.mil

**THANKS!!!**

Attachment (9)

